University of Vermont

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University of Vermont, College of Medicine Bulletin

University of Vermont

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College of Medicine

1974-75 CATALOGUE

The University of Vermont
Men are men
before they are lawyers
or physicians
or manufacturers;
and if you make them
capable and sensible men
they will make themselves
capable and sensible
lawyers and physicians.

John Stuart MILL
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY OF THE COLLEGE OF MEDICINE</td>
<td>1</td>
</tr>
<tr>
<td>STUDENT INFORMATION</td>
<td>3</td>
</tr>
<tr>
<td>MEDICAL COLLEGE OBJECTIVES AND PROGRAMS</td>
<td>7</td>
</tr>
<tr>
<td>TEACHING FACILITIES</td>
<td>10</td>
</tr>
<tr>
<td>ORGANIZATIONS</td>
<td>12</td>
</tr>
<tr>
<td>DEPARTMENT OF ANATOMY</td>
<td>12</td>
</tr>
<tr>
<td>DEPARTMENT OF BIOCHEMISTRY</td>
<td>14</td>
</tr>
<tr>
<td>DEPARTMENT OF EPIDEMIOLOGY AND ENVIRONMENTAL HEALTH</td>
<td>15</td>
</tr>
<tr>
<td>DEPARTMENT OF FAMILY PRACTICE</td>
<td>17</td>
</tr>
<tr>
<td>DEPARTMENT OF MEDICAL MICROBIOLOGY</td>
<td>18</td>
</tr>
<tr>
<td>DEPARTMENT OF MEDICINE</td>
<td>19</td>
</tr>
<tr>
<td>DEPARTMENT OF NEUROLOGY</td>
<td>20</td>
</tr>
<tr>
<td>DEPARTMENT OF OBSTETRICS AND GYNECOLOGY</td>
<td>21</td>
</tr>
<tr>
<td>DEPARTMENT OF ORTHOPAEDIC SURGERY</td>
<td>22</td>
</tr>
<tr>
<td>DEPARTMENT OF PATHOLOGY AND ONCOLOGY</td>
<td>23</td>
</tr>
<tr>
<td>DEPARTMENT OF PEDIATRICS</td>
<td>24</td>
</tr>
<tr>
<td>DEPARTMENT OF PHARMACOLOGY</td>
<td>24</td>
</tr>
<tr>
<td>DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS</td>
<td>25</td>
</tr>
<tr>
<td>DEPARTMENT OF PSYCHIATRY</td>
<td>26</td>
</tr>
<tr>
<td>DEPARTMENT OF RADIOLOGY</td>
<td>28</td>
</tr>
<tr>
<td>DEPARTMENT OF REHABILITATION MEDICINE</td>
<td>28</td>
</tr>
<tr>
<td>DEPARTMENT OF SURGERY</td>
<td>29</td>
</tr>
<tr>
<td>STUDENT DIRECTORY</td>
<td>34</td>
</tr>
</tbody>
</table>
The first General Assembly of the State of Vermont, convened in 1791, chartered the University of Vermont. Ira Allen, younger brother of Ethan Allen, had given 4,000 pounds sterling to help establish the institution. Instruction was started in 1800 and the first class graduated four years later.

Meanwhile Dr. John Pomeroy, for many years the leading physician of Burlington, began around the turn of the century to take pupils. In 1804 he was appointed Lecturer in Chirurgery and Anatomy and, in 1809, Professor of Physic, Anatomy and Surgery at the University. The position carried no stipend nor did the institution even provide a room in which to give instruction. By 1814 Pomeroy had so many students he could no longer accommodate them in his home and he consequently rented an empty store in which he lectured to a class of 12. His son, John N. Pomeroy (not a physician), added a course of lectures in chemistry in 1816 and to these the townspeople occasionally came out of interest in the demonstrations.

In 1822 a faculty of 5 professors including John Pomeroy and Nathan R. Smith was assembled and the Trustees of The University of Vermont ruled that the president might “confer medical degrees on such persons as shall attend the medical lectures and are recommended by the medical professors and lecturers of the University.” Dr. Smith’s father, the more famous Dr. Nathan Smith and the founder of the medical colleges of Dartmouth, Bowdoin, and Yale, is said to have helped in the organization of the Vermont school.

In the early years of the 19th century only a small portion of medical education took place in the universities. The part-time doctor of colonial times had given way to the full-time professional physician but there was no legal regulation of the practice of medicine. Most degrees and certificates, if they were obtained at all, were granted by the medical societies after the candidate had served as an apprentice.

In the late 1820’s a group of local physicians interested some philanthropically-minded residents of Burlington in buying land for a medical college building adjacent to the University campus and in 1829 a two-story brick building was built. In 1828 Benjamin Lincoln, the grandson of the famous revolutionary general of the same name, was invited to Burlington to give a course of lectures in anatomy. Lincoln had had a classical education at Bowdoin and had been apprenticed to the fashionable and distinguished Dr. George Shattuck of Boston. Rustic and educationally unprepared as most of the Vermont students were, they were evidently entranced by Dr. Lincoln’s beautiful demonstrations and the clarity of his presentations. He was offered the chair of anatomy and although the Universities of Maryland and Bowdoin both solicited him he chose Vermont, perhaps because he “hoped to realize . . . . his idea of a medical school in this University without the hindrance of encrusted organic remains from old formations.” Lincoln soon became the leading light of the school which flourished for a few years. Unfortunately he became ill and in 1834 went back to his home in Maine to die. There were now two other medical schools in the State and an economic depression was developing. In 1836 after having granted 116 degrees in course and 24 honorary ones, the College of Medicine closed its doors.

There was a lapse until 1853 when after many tribulations, most of them financial, Drs. W. S. Thayer of Northfield and Walter Carpenter of Randolph succeeded in reorganizing the Medical College. Subscriptions were solicited from the medical professors and the Burlington townspeople and Mrs. Thayer held a “fair” which netted $450.00. The University provided a building (the same one which had been used by Dr. Lincoln and which still is in use, although for different purposes) on the
academic campus. In spite of competition from the schools in Woodstock and Castleton in Vermont, and Hanover, N.H., courses were started and the school remained viable largely through the efforts and personal and professional distinction of Drs. Thayer and Carpenter, both of whom served successively as Dean. The average student attendance from 1859 to 1878 was about 65. Then under the deanship of Dr. A. P. Grinnell there was a period of rapid expansion reaching a high tide in 1884 when 101 young men were graduated in Medicine.

The University of Vermont College of Medicine was then, as were most others of the day, essentially a proprietary institution. The University provided some amenities, and it was to a considerable extent responsible for the success with which the College outlasted many of its competitors. The medical faculty was, however, a closed corporation collecting its own fees and providing its own administration. That this was not an ideal situation was apparent to the profession and in fact it was a movement toward reform of medical education proposed by the Vermont State Medical Society in the 1840's which led to a national convention which later evolved into the American Medical Association. In 1899 the Trustees of the University, although as yet only dimly aware of the enormous responsibility, financial and otherwise, which this was to entail, took over complete control of the College of Medicine.

In 1879 the Mary Fletcher Hospital was built in Burlington and in 1924 the DeGoesbriand Memorial Hospital began to admit patients. Both became centers of clinical instruction and in 1967 the two institutions merged to form the Medical Center Hospital of Vermont, providing an even closer association with the Medical College while at the same time retaining long traditions of service to the sick.

During the post-World War II deanship of Dr. William E. Brown, the faculty of the College of Medicine began a period of exponential growth, adding a national and then international flavor to the academic medical community. Under Deans George A. Wolf, Jr., Robert J. Slater, and Edward C. Andrews, the responsibility of American medicine toward the developing nations of the world has been implemented, research has flourished, and the material resources of the institution have increased, culminating in the construction of a new medical college building completed in 1968.

The physician, while still in most instances the captain of the health team, is being joined by increasing numbers of other professional personnel who bring to the care of the patient diverse disciplines, talents and techniques, many of them unknown a few years ago. The University has responded to this trend by two recent developments, one administrative and the other academic. In December of 1967, the Trustees approved the establishment of the Division of Health Sciences bringing together into an administrative unit, the College of Medicine, the School of Nursing and the newly founded School of Allied Health Sciences to include the courses of instruction in Dental Hygiene, Medical Technology and Radiological Technology. Others will undoubtedly be added.

The academic consequence of this increase in complexity has been the recognition that specialization, already well established in the patterns of medical practice, may begin in medical school, allowing the student to follow his interests and obtain maximum benefit from the time and effort expended. The curriculum has therefore undergone a major revision as will be seen in later pages of this brochure.
Student Information

REQUIREMENTS FOR ADMISSION
Applicants to The University of Vermont College of Medicine are expected to complete the required courses of study by July 1 preceding the September admission date—in a college or university accredited by the National Committee of Regional Accrediting Agencies of the United States.

Required are one year each of the following college level courses:
- Biology
- Physics (including laboratory)
- General or inorganic chemistry
- Organic chemistry

In addition, because a physician requires a broad and balanced cultural background as well as a technical education, the College recommends as appropriate to an adequate premedical program:
- English—at least one and preferably two years of composition and/or literature.
- Mathematics—dependent upon secondary school preparation but should include at least an introduction to calculus.
- Behavioral Sciences—one or two years in the areas of psychology, sociology or anthropology.
- The Humanities—at least two years of course work in history, philosophy, religion or the arts.

The College of Medicine encourages its prospective students to concentrate while in college in a field of knowledge of their choice, whether in the sciences or humanities, and to pursue these interests in depth.

Since communication, written and verbal, is so essential in scientific and clinical medicine, the faculty of the College of Medicine fully expects applicants to have mastered basic skills in the use of the English language, i.e., proficiency in grammar, spelling and organization.

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

The scholastic record of the applicant in his premedical work.

Aptitude, motivation, and character traits essential for the study and practice of medicine as determined by information from the applicant's undergraduate faculty and by personal interview with the Admissions Committee.

The applicant's scores on the Medical College Admission Test. Applicants are urged to take the Test in May preceding application.

A maximum of 83 students is admitted to each entering class.

Preference for admission is according to the following priorities:
A. Qualified residents of Vermont.
B. Qualified residents of other New England States having contractual arrangements with the College of Medicine through the New England Board of Higher Education.
C. Qualified residents of other states.
D. Sons and daughters of alumni of the College of Medicine are given special consideration within the framework of the above policy.

In order to further the interest of the applicant's respective state of residence in retaining physicians to provide medicine and deliver health care to its citizens, preference will be given in "A" and "B" above to those applicants having the greater duration of residency within their respective states of residence.

The final closure date for receiving applications is November 1 preceding the September admission.

An application fee of $15.00 (not refundable) is payable on request of the Office of Admissions.
Regulations for College of Medicine Students

Students are governed by the regulations as stated in the Bylaws of the College of Medicine. Some of the more pertinent regulations are as follows:

EVALUATION, ADVANCEMENT AND DISMISSAL

Students will be evaluated by faculty on total performance, academic and non-academic. This student performance is to be evaluated within the context of the course objectives, which will be defined by each department and made known to students at the onset of each course. Students will be informed in advance of the methods to be used in evaluating academic performance. In addition to the academic course objectives, the following character traits, among others, will be evaluated: judgment, personal insight and perception, personal integrity, personal accountability, responsibility and sensitivity, all of which are deemed essential to a career in medicine.

Final examinations may or may not be held, at the option of the department.

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 an examination by the chairman of the department or section concerned.

Student performance is evaluated on the basis of Pass or Fail, which will be the only evaluation recorded by the Dean's Office as an official part of the student's transcript.

Each department is responsible for preparing narrative or other records of student performance related to course objectives. Copies of such records shall be included in the student's file in the Dean's Office. A student will have the right to review that portion of his file at any time. Students will be apprised promptly of their overall performance and of their final academic status (Pass or Fail) at the end of each course or clinical rotation.

The Committee on Advancement reviews the total performance of all students at least twice yearly, and may do so at any time. Specific procedures under which the Committee on Advancement operates are as follows:

A. BASIC SCIENCE CORE

1. Students who have satisfactorily completed the work of the Basic Science Core will be advanced to the Clinical Science Core by the Committee on Advancement.

2. Students failing subjects in any of the first three trimesters of the Basic Science Core may, by majority vote of the Committee on Advancement, be permitted to remove these deficiencies by satisfying the requirements of the Department(s) concerned prior to commencement of the fourth trimester. Such requirements will be met, as a rule, during the summer vacation period between the third and fourth trimesters.

   a. Any student failing to meet the above requirements of the first three trimester course(s) will be dismissed from the College of Medicine for poor scholarship.

   b. Under extraordinary circumstances, the above rule (Section 3. (6) A. b i) may be waived by majority vote of the Committee on Advancement, thus permitting
a student to carry into the fourth trimester a single, but not more than one, course deficiency. However, the requirements of the pertinent Department must be satisfied before the end of the Christmas vacation. Any student failing to meet this requirement will be dismissed from the College of Medicine for poor scholarship.

3. Students failing any of the work of the fourth trimester, may, by majority vote of the Committee on Advancement, be permitted to remove these deficiency(ies):

a. By satisfying the requirements of the Department(s) concerned prior to entrance into the Clinical Science Core,

   i. before the end of the Christmas vacation, or

   ii. by delayed (two months) entry into the clinical rotations. The service omitted will be completed as soon as possible in the Senior Major Program.

b. Any student failing to meet the above requirements of the fourth trimester course(s) will be dismissed from the College of Medicine for poor scholarship.

4. No student is permitted to repeat the work of the Basic Science Core except upon majority vote of the Committee on Advancement.

   It is recommended that this be reserved primarily for students whose studies have been interrupted by acute illness, accident or other extraordinary circumstances. It is further recommended that such student be considered an additional member of the succeeding class.

B. CLINICAL SCIENCE CORE

1. Students who have satisfactorily completed the work of the Clinical Science Core will be advanced to the Senior Major Program by the Committee on Advancement.

2. A student failing one of the Clinical Science Core subjects may, on majority vote of the Committee on Advancement, be permitted to continue with his class, delaying entry into the Senior Major Program for a period of time to be specified by the Advancement Committee until he has met the requirements of the Department concerned. Failure to meet these requirements will result in dismissal from the College of Medicine for poor scholarship.

3. A student failing two or more Clinical Science Core subjects will be dismissed from the College of Medicine for poor scholarship.

4. No student is permitted to repeat the work of the Clinical Science Core except upon majority vote of the Committee on Advancement. It is recommended that this be reserved primarily for students whose studies have been interrupted by acute illness, accident or other extraordinary circumstance. It is further recommended that such student be considered an additional member of the succeeding class.

C. SENIOR MAJOR PROGRAM

1. The degree of Doctor of Medicine is granted by the Board of Trustees of the University of Vermont to candidates only upon recommendation of the Committee on Advancement and Faculty of the College of Medicine to the University Senate. The Committee on Advancement will initiate these recommendations for all students who satisfactorily complete the Senior Major Program.

   A student whose status is in jeopardy by reason of poor scholarship or by reason of behavior considered to render him unfit for a career in medicine will be so informed by that member of the Office of the Dean responsible for Student Affairs in order that remedial action be taken by the student and the College wherever possible.

   A student who is dismissed by reason of poor
scholarship shall be notified in writing of his dismissal by the Dean of the College of Medicine. Upon written request presented to the Dean of the College of Medicine within ten (10) days of mailing of notification of dismissal, a student shall be entitled to appeal this dismissal, in person or in writing, to the College Advisory Council which will in turn make recommendations to the Dean. In the course of formulating such an appeal the student has the right to review that portion of his file concerned with his performance in the College.

In addition to dismissal for poor scholarship, the Faculty may dismiss at any time a student whose behavior is considered to render him unfit for a career in medicine. Such behavioral qualities include, but are not limited to, demonstrated poor judgment, lack of perception or personal insight, lack of personal integrity, lack of personal accountability, lack of responsibility to patients, lack of sensitivity to the needs of patients, or the commission of any criminal act when such behavior is found to adversely affect the student’s ability to practice medicine.

In the event a student’s fitness for a career in medicine comes into question for other than poor scholarship, the Dean of the College of Medicine may appoint an ad hoc Committee which shall include at least one student from the College of Medicine, whose duties it shall be to fully investigate the question of the student’s fitness for a career in medicine and report to the Faculty its finding and recommendations according to a schedule established by the Dean.

The Dean of the College of Medicine shall send written notification to the student’s last local address advising him of the investigation, the membership of the Committee, and the specific allegations giving rise to the question of the student’s fitness. The written notification shall further advise the student of his right to review his file and that he has the right to appear personally before the Committee and present any information he desires relative to the matter under investigation. The Committee shall preserve thorough minutes of all its meetings.

The Committee shall advise the student of any information which it has obtained in the course of its investigation which was not in the student’s file so that the student will have the opportunity to respond. Upon receipt of the Committee’s finding and recommendations, the Faculty shall determine by majority vote whether or not the student is dismissed from the College of Medicine. The Dean of the Medical College thereupon shall send written notification to the student’s last local address advising him of the Faculty’s decision. The decision of the Faculty shall be final.

**LEAVE OF ABSENCE**

Upon application, a student may be granted a leave of absence by that member of the Office of the Dean responsible for Student Affairs under the following provisions:

A leave of absence must be granted for a finite period of time.

A leave of absence normally may not exceed twelve (12) calendar months.

A leave of absence guarantees readmission to the College of Medicine providing the individual confirms his or her intent to return at least three months preceding the desired date of return.

A leave of absence will be requested in writing by the student, with reasons therefor and approved or disapproved in writing by the appropriate College official.
# Medical College Objectives and Programs

**OBJECTIVES**

To provide undergraduate medical students with a sound foundation for careers in any branch of medicine, and to prepare them for further training for the many different fields of endeavor.

To prepare medical and graduate students for careers as teachers and investigators in medicine and its various disciplines.

To participate in the training of clinical specialists.

To provide students in non-medical disciplines with a background in the sciences basic to medicine.

To contribute to the knowledge of medicine through research, and to encourage curiosity and critical judgment among students and staff.

To review the College’s program continually in the light of recent and anticipated advances in the health sciences.

To provide opportunities for the continuing education of practicing physicians.

To be of service through education.

## UNDERGRADUATE MEDICAL EDUCATION PROGRAM

The curriculum consists of three parts, spanning a period of forty-five months from admission to the granting of the M.D. degree.

### BASIC SCIENCES CORE

<table>
<thead>
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<tr>
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<tr>
<td>Gross Anatomy (includes Embryology)</td>
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<tr>
<td>Microscopic Anatomy</td>
<td>84</td>
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<tr>
<td>Human Behavior</td>
<td>50</td>
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<tr>
<td>Epidemiology and Environmental Health</td>
<td>39</td>
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<tr>
<td>Basic Clerkship</td>
<td>178</td>
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<tr>
<td>Physiology and Neurosciences</td>
<td>235</td>
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<tr>
<td>Microbiology</td>
<td>107</td>
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<td>Pathology</td>
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<td>Pharmacology</td>
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<table>
<thead>
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### CLINICAL CORE

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<td>Medicine</td>
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<tr>
<td>Surgery</td>
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<td>Pediatrics</td>
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<td>Psychiatry</td>
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<td>Obstetrics &amp; Gynecology</td>
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<table>
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<tr>
<th>Years</th>
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### SENIOR MAJOR

<table>
<thead>
<tr>
<th>Tailored to individual interest and goals</th>
<th>Weeks</th>
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<tbody>
<tr>
<td>72 weeks (16 monthly rotations), Required and elective in type.</td>
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</table>

*Refers to number of formal student-faculty contact hours via lecture, conference, or laboratory period.*
BASIC SCIENCE CORE

The Basic Sciences Core consists of one and one-half years of instruction in the six preclimical sciences that undergird clinical medicine—Anatomy, Physiology, Pharmacology, Biochemistry, Pathology and Medical Microbiology. In addition, seminars in Epidemiology and Environmental Health (including a required “community problem” project), a program in Human Behavior, and a new course, Medical Aspects of Human Sexuality, attempt to provide the first-year student with an awareness of social, cultural, and psychological factors affecting health and illness.

Opportunities for advanced placement in one or more of the preclinical sciences are available for students with strong backgrounds in these disciplines.

A recent addition to the Basic Sciences Core has been the Basic Clerkship. This educational experience begins on the first day of medical school. Its goal is to prepare the student for the study of medicine by the study of patients. This is accomplished by teaching the student communication skills, history-taking and problem formulation through patient interview, and within four months performing complete physical examinations on hospitalized and ambulatory patients within the framework of the problem-oriented medical record.

CLINICAL SCIENCE CORE

The second phase of the curriculum is called the Clinical Core. This is a twelve-month period devoted to the clinical sciences of Medicine, Surgery, Obstetrics-Gynecology, Pediatrics and Psychiatry. During this year, the student works with and under the supervision of house staff and attending physicians on the wards and in the clinics of the Medical Center Hospital in providing primary care to patients. By the end of the Clinical Core, it is anticipated that each student will have gained sufficient skills, knowledge and experience to permit him or her to independently deliver primary care. In addition, many students at this point are prepared to make an educated choice of careers within medicine. At the midpoint in the Clinical Core, there is a two-week summer recess.

SENIOR MAJOR PROGRAM

The third portion of the curriculum, the Senior Major Program, extends through the final one and one-half years prior to graduation. This period is divided into sixteen rotations of one month duration each. The major program enables each student to select that course of study best suited to their individual career objectives. Majors are offered in each of the preclinical sciences, plus Medicine; Family Practice; Surgery and its subspecialties; Obstetrics-Gynecology, Pediatrics, Neurology, Psychiatry, Rehabilitation Medicine and Epidemiology and Environmental Health.

An integral part of each clinical major includes a number of required clinical and laboratory experiences, as well as elective rotations. Principal among the required rotations are one or more months spent as an "acting intern." Here the student is given, under supervision, primary responsibility for the total care of a number of hospitalized patients, and thus, begins to refine his ability to diagnose and manage clinical problems. Graduated responsibility, based upon audited performance, is the central theme of our clinical instruction.

The elective rotations are not restricted to the disciplines in which the student is majoring, and may include approved learning experiences elsewhere in the U.S. or abroad. Many students see this as an opportunity to work and study in a large urban setting, at another medical school or a foreign medical center. Students should anticipate spending variable periods of time away from Burlington in the course of pursuing their required training.
A system of faculty advisors has been developed to counsel each student on a one-to-one basis throughout the planning and course of this major program and in anticipation of later graduate education. Although the majority of students elect to pursue a clinical major, students so desiring may commit their entire major program to study in one of the preclinical sciences. While these programs are individualized, it is expected that related graduate study, research, and a thesis (M.S. candidate only) will form the basis for each. Qualified students may simultaneously enroll in the Graduate College of the University as candidates for the Master of Science degree while fulfilling the requirements for the M.D. degree within the College of Medicine.

GRADUATE MEDICAL EDUCATION

The Graduate Medical Education program is supervised by a Graduate Medical Education Committee consisting of representatives of the various medical school departments offering training programs from the Dean’s office and from the hospital administration. This Committee, which is advisory to the Departmental Chairmen (who are also Chiefs of Services) and to the Dean, reflects the policy of collective responsibility for the quality of the programs and their integration into the patient care and education activities of the hospital and college of medicine. Each Departmental Chairman and Section Chief designs the training program for each specialty.

The University of Vermont College of Medicine and the Medical Center Hospital of Vermont offer internship programs in Medicine, Pathology, Pediatrics, and Surgery. Each is the responsibility of the appropriate department chairman; each has the flexibility to complement the varying undergraduate backgrounds of its candidates; each is integrated with its corresponding residency program.

Residency programs are offered in Anesthesiology, Internal Medicine, Neurological Surgery, Neurology, Obstetrics and Gynecology, Orthopedic Surgery, Otolaryngology, Pathology, Pediatrics, Psychiatry, Radiology, Rehabilitation Medicine, Surgery, Thoracic and Cardiac Surgery, and Urology. A residency in Family Practice has been established as a track in the medical residency program.

RESEARCH

Research is an integral part of the College of Medicine (1) as an intellectual discipline enhancing the ability of the professional to deal with medical problems, (2) as a means of enhancing the educational process and development of knowledge and technology, (3) as an essential component of efforts to improve medical care through development of new diagnostic and therapeutic modalities based on an understanding of disease processes, and (4) as a means to enhance utilization of resources available to achieve specified goals in health care delivery. Many faculty members of the College of Medicine, often working
with faculty of other colleges of the University, are engaged in a wide-ranging number of research projects supported by private and federal grants.

**Teaching Facilities**

In 1968 the third phase of a 12-million dollar expansion program was dedicated, completing a decade of planning and construction accomplished through alumni support, private philanthropy and federal funds. Thus for the first time the teaching and research activities of the College of Medicine have been brought together under one roof.

First to be completed in this ambitious program was the Medical Alumni Building. Dedicated in 1959, this structure was named to honor the loyalty of the medical alumni whose vision and support provided the impetus for the building program.

The Medical Alumni Building is linked to the Given Medical Building by the two-storied Charles A. Dana Medical Library. This air-conditioned facility provides eight times the area of the old library, more than triples the book capacity and contains carrels for individual study, as well as comfortable and spacious reading rooms. The Library is open seven days a week.

Largest of the three buildings is the Given Medical Building. Its 236,000 square feet contain the majority of the teaching and research space for the College of Medicine. This unit also contains the 280-seat Carpenter Auditorium, student lounge, administrative offices and cafeteria.

In the spring of 1973 the $3.2 million Rowell Nursing and Allied Health Sciences Building was dedicated. This Facility connected to the Given Medical Building provides approximately 70,000 square feet of classroom and office space in support of the University of Vermont’s expanding program in nursing and allied health sciences.

**THE CHARLES A. DANA MEDICAL LIBRARY**

Medical Librarian Mrs. Ellen Gillies, B.S. in L.S.; Director, Hospital Library Development Services Robert J. Sekerak, M.L.S.

The Medical Library is located in the center of the Medical College complex, between the Medical Alumni and the Given Medical Buildings. Two floors house about 50,000 volumes, including 1,000 rare books, as well as medical instruments and apparatus of our Vermont medical history. Exhibits in the literature and history of medicine are presented regularly. The Library receives 1500 journal titles and the Audiovisual Department maintains a collection of 2,000 films, audiotapes, slides, etc.
All users have free access to the open stacks, which contain study carrels. Further space for readers is provided on the main floor reading room.

The Library is open from 8:00 a.m. to 12:00 midnight Monday through Thursday, 8:00 a.m. to 11:00 p.m. on Friday and Saturday, and 10:00 a.m. to 12 midnight on Sunday.

Photocopy service is available in the Machine room where staff is on duty from 8:00 a.m. to 5:00 p.m., Monday through Friday. There is also a copying machine available during the evenings and weekends. A TWX (teletype) machine provides speedy transmission of interlibrary loan requests. The resources of larger medical libraries in the Regional Medical Library Network and the National Library of Medicine are thus readily available to the students and faculty. MEDLINE service is also available to users, providing an on-line bibliographic searching capability. Using an NCR 260 Thermal Printer, instantaneous searching of medical literature from 2500 journals published from 1970 to date can be obtained.

The Medical Center Hospital of Vermont, Inc.

For a medical school, the teaching hospital is the keystone that supports the clinical education of the medical student and graduate physician alike. Here the opportunity exists to observe and participate in the care of the sick under the mentorship of those who exemplify the highest skills in the science and art of medicine.

The two former teaching hospitals of the University of Vermont College of Medicine, the DeGoesbriand Memorial and the Mary Fletcher, have legally merged to form the Medical Center Hospital of Vermont. This brought into existence in Burlington one of the larger and more comprehensive general hospitals in New England.

The role of the Medical Center Hospital is unique in the northern New England region. Not only is it the teaching hospital of the University of Vermont College of Medicine and a referral center for upstate New York, northern Vermont and New Hampshire, but it is also the major community hospital for the 100,000 inhabitants of the Greater Burlington Area. A balance exists, therefore, between patients with complicated and rare diseases and those with diseases that are prevalent in any community; a balance that provides every intern and resident at the Medical Center Hospital with medical experiences in breadth as well as depth.

Each year more than 18,000 patients are discharged, over 20,000 clinic visits made, and nearly 31,000 patients are treated in the emergency rooms of the Medical Center Hospital. Expansion of facilities in 1968 increased the maximum bed capacity to 750, growth that has been matched by expanding capabilities in all medical services and in clinical research. All of the two hundred physicians on the attending staff hold faculty appointments at the University of Vermont College of Medicine.

Besides medical teaching, educational programs are conducted in nursing, x-ray technology, laboratory technology, social service, hospital administration and physical therapy. Special facilities are available such as a cine-fluoroscopy unit in Radiology, a cardiopulmonary laboratory performing cardiac catheterizations as well as routine heart and lung studies, a radio-isotope laboratory, and deep therapy treatment by means of cobalt and linear accelerator. Research is an important part of the medical center program.
Office of Educational Support

Acting director—Raymond L. Milhous, M.D.,
Administrative Associate—Gerald Goold,
M.Ed., Continuing education—George W.
Welsh, M.D., Instructional television—
Christopher McClure.

This office assists faculty in the planning and
implementation of continuing education pro-
grams, in the evaluation and improvement of
instructional techniques, and in the use of
instructional television.

Medical Photography

Director Francis C. Mallory, R.B.P.; Medical
Photographer Wing M. Woon; Assistant Pho-
tographer Peter McCarthy; Medical Illustrator
Gary J. Nelson.

Medical Photography has a full-time staff
whose services are available to all Depart-
ments for patient photography, photomi-
crography, medical illustration, teaching aids,
and movies, in both black and white and color.

ORGANIZATIONS

Each fall the Medical Alumni Association
sponsors a Century Club banquet, at which
time all members of the junior class are enter-
tained and recent graduates of the medical
school help prepare the prospective graduates
for their years of postgraduate education.

At Commencement the Medical Alumni As-
sociation sponsors an annual alumni banquet
on Alumni Day, at which time the senior class
members and their guests attend with all
alumni who are returning for Commencement.

The Alumni Association through its Century
Club sponsors many student and faculty en-
deavors during the year, including the spon-
sorship of visiting professors, student prizes
for academic excellence, and substantial
support of the student loan fund.

For the years 1974-76 the following Alumni
serve as officers of The University of Vermont
Medical Alumni Association:

President—
John L. Costello, ’44, Clifton, N.J.

President-Elect—
John S. Poczabut, ’41, Stamford, Conn.

Vice President—

Secretary-Treasurer—
Stanley L. Burns, ’55, Burlington

Executive Committee—
Elizabeth Clark Cleweley, ’56, Burlington
(1974-80)
John P. Tampas, ’54, Burlington (1974-78)
R. M. P. Donaghy, ’36, Burlington (1974-
76)

The Department of Anatomy

Chairman: William J. Young, II, Ph.D., Thayer
Professor of Anatomy. Professors Newhall
(Emeritus), and Young; Associate Professors
Freedman, Ring, (Radiologic Anatomy) and
Wells; Assistant Professors Boushey, Horst,
Krupp, McCandless, and Paul, Instructor
Finn.

Courses for medical students are given in
gross and microscopic anatomy, (including
embryology), neuroscience and genetics.
BASIC SCIENCE CORE

GROSS ANATOMY. The core course is designed to give the student a grasp of the fundamental principles of organization of the human body, together with the relevant, selected detail. General dissection of the entire body is carried out by the students. Those areas requiring time-consuming and difficult dissections are covered by demonstration of prospected material. Models, cross sections, skeletal material, charts, and movies are utilized throughout the course. Radiological anatomy of all regions is presented, and appropriate clinical departments correlate the gross anatomy of a given region with clinical problems by lectures, visual aids, and presentation of patients. Two hours of lecture, including embryology, and twelve hours of laboratory weekly during the first trimester.
MICROSCOPIC ANATOMY. The aim of the core course is to help the student acquire useful and meaningful concepts of cell and tissue morphology and the structural organization of selected organs; an appreciation of structure as the locus of function; and an introduction to the methodology of histologic examination of tissues. Histochemistry and electron microscopy are emphasized when they illuminate structural and functional concepts. Six hours of lecture and laboratory each week during the first trimester.

NEUROSCIENCE. The core course outlines morphological and physiological features of the neuron and the central nervous system. The functional significance of structure is emphasized throughout, in order to prepare the student for intelligent diagnosis and localization of neural disorders in the clinical sciences. The course is offered in the second trimester.

GENETICS. The principles of genetic analysis, and of gene and chromosome structure, function and transmission are examined in twenty lectures in the fourth trimester. The consequences of altered gene function are illustrated in appropriate clinical examples, as are principles of genetic counselling. Drs. W. J. Young, R. J. Albertini and D. S. Newcombe (Medicine).

MAJOR PROGRAM

The Department of Anatomy, in cooperation with interested clinical departments, offers, in addition to Graduate College courses, advanced and revision opportunities in pertinent aspects of neuroanatomy, surgical anatomy, histology, embryology and genetics.

GRADUATE COLLEGE COURSES

Graduate courses and opportunities for research are available to interested medical and graduate students. Programs in the Anatomy Department can lead to the degree of Master of Science or Doctor of Philosophy. Participation in such degree programs is conducted under the regulations of the Graduate College and requires the approval of the Department and the College of Medicine. The Graduate College catalog should be consulted for courses and programs.

The Department of Biochemistry

Chairman: Donald B. Melville, Ph.D. Professors Lamden and Melville; Associate Professors Meyer, Thanassi, Woodworth, and Wuthier; Associate Professor (Clinical) E.A.H. Sims; Assistant Professors Hart, Schofield, and Willard, Instructor (Clinical) Kunin.

The primary objective of the teaching program is to impart a knowledge of fundamental biochemistry which will permit an understanding of present applications and future developments in relation to medicine. In order to provide the biochemical information needed
by other basic sciences, biochemistry is offered at the beginning of the first year. Emphasis is placed on fundamental biochemical principles, and applications to medicine are introduced whenever feasible.

Members of the Department are also available for participation in other courses in the medical curriculum when the subject matter is related to biochemistry.

**BASIC SCIENCE CORE**

**MEDICAL BIOCHEMISTRY.** Lectures, conferences, and assigned reading in biochemistry, particularly as it relates to medicine. The first part of the course stresses the area of molecular biochemistry: chemistry, structure, and metabolism of proteins, amino acids, carbohydrates, lipids, and nucleic acids, and the properties and functions of enzymes. The second part is concerned with the biochemistry of the whole organism, with special reference to man: respiration, hemoglobin, iron metabolism, and plasma proteins; acid-base balance and mineral metabolism; vitamins; hormones and control mechanisms.

**GRADUATE COLLEGE COURSES**

Opportunities exist for additional training in both the theoretical and practical aspects of biochemistry. Graduate courses offered by the Department as part of its Ph.D. program are available to qualified medical students as part of their elective program. Participation in the research activities of the Department is possible as an elective and also during the summer. Subject to the approval of the Department and to the regulations of the Graduate College, it is possible for qualified students to apply credit obtained in graduate courses and research toward an M.S. degree in biochemistry.

**PREREQUISITE—Permission of the Department Chairman.**

301-302 General Biochemistry; 303 Biochemistry Laboratory; 305-306 Medical Biochemistry; 320 General Enzymology; 321 Enzyme Kinetics and Mechanisms; 331 Nucleic Acids; 340 Organic Biochemistry; 371 Physical Biochemistry; 381 Seminar.

The Department of Epidemiology and Environmental Health

**Chairman:** Julian A. Waller, M.D., Professors Houston, Mabry, Waller and Weed; Associate Professors Aiken, F. L. Babbott, Friedman, Robbins (Clinical), Sylwester and Tormey; Assistant Professors Ashikaga, Lantman (Clinical), Miller, and Schultz; Instructors (Clinical) D.H. Brown, J.C. Twitchell.

The Department of Epidemiology and Environmental Health offers students principles, techniques, and experience which will help them fulfill their future responsibilities as practitioners and knowledgeable citizens who are concerned both with the whole patient and with the influence of the physical and social environmental on health. The Department offers a variety of courses and programs directed toward this end throughout the four years of medical school. Research activities include studies of unintentional injury, consumer protection, biometry and epidemiologic and sociological aspects of health services delivery and evaluation. The Department is also involved in epidemiologic and sociological components of health service planning, both for Vermont and elsewhere, and in environmental health research and protection.

**BASIC SCIENCE CORE**

**COMMUNITY MEDICINE.** An introductory
course is part of the first year curriculum. This includes a consideration of social science in medicine, environmental health problems, the application of epidemiologic techniques to community health services and to selected infectious and non-infectious diseases. Students in small groups participate in the identification and solution of selected community health problems. 48 hours.

BIOSTATISTICS IN RESEARCH EVALUATION. A short course is provided in biostatistical terminology and methods. This course is designed to prepare the medical student to critically evaluate research reported in the medical literature and is generally taken during the first three days of the Senior Major.

ELECTIVE PROGRAM

Senior Elective. The Department does not offer a prestructured senior major program as such. Instead every attempt is made to match individual student interests and goals with a varied assortment of work-study options. These options include (a) community hospital externship and similar programs to identify the distribution and causes of health needs in the community, (b) sociology of communities from a medical care perspective, (c) design and implementation of projects to evaluate medical care needs and to initiate epidemiologic and sociologic components of health planning, (d) experience in environmental health programs, (e) experience in federal and other governmental and private agencies concerned with health planning. Students may also elect additional study in biostatistics or intensive study of the application of biostatistics to their special area of interest.

Concurrent Elective. The Department also works with students who are taking senior electives in various clinical disciplines and who seek assistance in simultaneously incorporating community, research or evaluative components to their experience.

Other Electives. Over the years the Department has responded to the interests of individuals and groups of students in initiating special studies, seminars, and extracurricular courses such as drug abuse, medical ethics, and other special topics. As funds are available summer fellowships are offered to expand upon community projects carried out during the freshman year and for other special projects.

GRADUATE COLLEGE COURSES

The Department offers a graduate program in biostatistics leading to the degree of Master of Sciences with courses available to qualified medical students and others. In addition, the following elective graduate courses offered by this Department in Medical Sociology are available to medical students and house staff.

PREREQUISITE – Permission of the Instructors.

300 MEDICAL SOCIOLOGY. Advanced topical seminar. Second semester, 3 credit hours.

305, 206 MEDICAL SOCIOLOGY. Individual study at any time and for any period. By arrangement, 1-3 credit hours.
The Department of Family Practice

Chairman: Edward E. Friedman, M.D., Professor Friedman; Assistant Professor Sanfacon; Clinical Associate Professors Stanilonis, Lantman; Clinical Assistant Professors Park, Ryan, Allard.

The Family Practice program is designed to develop an understanding of the delivery of comprehensive, primary care. Students should be prepared to assume the responsibility for total family involvement which requires reliability, compassion, understanding and self-confidence. The Family Practitioner must be capable of defining resources, community and medical, in an effort to manage total patient care and provide for assistance in social, financial and psychological areas where indicated. Patient and public education is an integral part of the day-to-day function of the Family Practitioner, as is preventive care and hazard control.

BASIC SCIENCE CORE:
The objectives are to enable Freshmen to obtain and practice complete medical histories, perform thorough and reliable physical examinations and to formulate appropriate problem lists. The Basic Science Core is that of the Department of Medicine and includes all functions and rotations of this department.

SENIOR MAJOR PROGRAM IN FAMILY PRACTICE:

This program is designed for students who are interested in Family Practice. Its requirements include required rotations in Basic Science Review, Internal Medicine, Pediatrics, Psychiatry, Newborn Pediatrics, Intensive Care Nursery, Emergency Room, Rehabilitation Medicine and extramural preceptorship.

ELECTIVES:

During the five months of electives the following are suggested rotations: Dermatology, Ear, Nose and Throat, OB/GYN, Neurology, Radiology, Orthopedics, and community and agency services. These electives will be arranged with the Department or Division concerned and will be so designed as to offer the best exposure needed for Family Practice Majors. Consultation/Liaison service, ambulatory care settings, clinics and institutional care are some of the areas available. Dermatology, Radiology, Orthopedics, Neurology are only some of the areas strongly recommended.

Student orientation and participation in community and agency programs extends for a period of days to weeks in extramural settings. All arrangements are made to suit student’s interest on an individual basis. Some of the areas suggested would be Visiting Nurses Association, Mental Health agencies, Health Department divisions, Extended Care (skilled) Facilities, Department of Epidemiology and Environmental Health Programs with teaching in Medical Sociology, Biostatistics, etc. Special assignment by student request will be evaluated for approval before assignment.

Where necessary, services outside the Medical College and Medical Center will be scheduled and arranged after approval of these services by the Chairman of the Department of
Family Practice, and the Chairman of the specialty involved. There are Public Health Service clinics, private clinics and community health services in areas around the country that offer an excellent experience in ambulatory care under supervision with responsibility in keeping with level of training.

The Department of Medical Microbiology

Chairman: Warren R. Stinebring, Ph.D. (sabbatical 1974-75); Acting Chairman: Warren I. Schaeffer; Professors Johnstone and Stinebring; Associate Professors Boraker, Forsyth, T. J. Moehring, Novotny, Phillips and Schaeffer; Assistant Professors Albertini, Gump, J. M. Moehring, and Fives-Taylor; Instructor Gallagher.

The Department of Medical Microbiology, through its teaching program for undergraduate medical students and graduate students, and through the research activities of its members, both faculty and departmental medical or graduate students, proposes to provide training in fundamentals of pathogenic microbiology needed by all students (medical or graduate) of parasitism and training in advanced microbiology, needed by medical or graduate students who expect to undertake teaching or research in this field. Areas of special teaching competence or research interest include: host-parasite relationships at the organismic, cellular, and molecular levels, microbial genetics, immunology and immunogenetics, diagnostic bacteriology and virology, and cell, organ or tissue culture. Medical students, with permission, are encouraged to participate in any of these activities during free or elective time.

BASIC SCIENCE CORE

MEDICAL MICROBIOLOGY. The primary objective of this course is to present to students of medicine those aspects of microbiology which they as physicians will find of value. Mechanisms of pathogenesis, mechanisms of host resistance, specific agents causing diseases of viral, bacterial, fungal, and parasitic origin, are discussed with emphasis on the ecologic rather than taxonomic approach. Basic aspects, antibiosis and resistance development, autoimmune diseases and transplantation immunity, viral oncogenesis, “slow” virus infections are topics receiving special emphasis. Laboratory emphasis is on presentation of material which augments lecture material or illustrates how the laboratory can be an aid to the student of microbial disease rather than in developing the laboratory skills of the students.

GRADUATE COLLEGE COURSES

The Department offers programs of study leading to the Master of Science and Doctor of Philosophy degrees. Medical students may also participate in these programs.

PREREQUISITE – Permission of the Department Chairman.

See Graduate College Bulletin. Courses for graduate students only.
The Department of Medicine


The Department of Medicine has as its threefold mission scholarly instruction in the disciplines of clinical medicine, the comprehensive care of patients and the investigation of human disease.

Members of the Department have had advanced training in the broad field of internal medicine, and must have additional research or special clinical skills that provide balance and strength through the areas of departmental responsibility in hospitals, clinics and laboratories.

As attending or consulting staff physicians at the Medical Center Hospital of Vermont and/or Fanny Allen Hospital, members of the Department of Medicine provide daily patient care and bedside instruction and supervision for students, house staff, clinical trainees and other physicians. As clinical and laboratory investigators, they bring refined and quantitative methods to bear on problems of human disease, often working as units or teams in laboratory areas within the Medical School complex. Included within the Department of Medicine is the Section of Dermatology.

The many formal and informal departmental conferences, ranging from Medical Grand Rounds to daily bedside rounds, are attended by students, house staff, senior staff and visiting physicians.

**BASIC CLERKSHIP**

The objectives of the Basic Clerkship are to enable freshmen and first-trimester sophomore students to obtain and practice complete (pre-defined) medical histories, perform thorough and reliable physical examinations and to formulate appropriate problem lists. The class meets weekly as a whole group, and also in small groups and in tutorial sessions, where
patient workups are supervised by members of the faculty of the Department of Medicine and the other clinical departments. In short, the Basic Clerkship is designed to impart in the student the basic (essential) clinical skills required to create a proper data base and to identify each patient’s medical problems.

**CLINICAL CLERKSHIP IN MEDICINE**

In terms of patient care skills and professional attitudes, the Clinical Clerkship in Medicine commences where the Basic Clerkship terminates. Emphasis in this twelve-week experience on the Medical Units of the Medical Center Hospital of Vermont is on the management of hospitalized patients. Students are encouraged to take progressive but appropriate responsibility for patient care under the supervision of resident and attending faculty. Subspecialty conferences, Grand Rounds and audit sessions supplement regular bedside teaching rounds.

**MAJOR PROGRAM IN MEDICINE**

The Department of Medicine Major Program is designed for students interested in family medicine, “classic” internal medicine or an academic (often research) career. Its requirements include a review of basic science relevant to clinical medicine, supervised acting internships on the Medical Service at MCHV and a preceptorship with approved groups of practicing primary care physicians. The majority of the program is open for the student to select, with the assistance of a faculty advisor, those experiences at the MCHV and in approved extramural centers which best fit his long-range goals. These experiences can include research and/or general and specialty medical rotations.

Section of Dermatology

*Chairman:* James F. Madison, Associate Professor (Clinical) W. L. Dennison, Jr., Assistant Professor (Clinical) and A. H. Flower, Jr., Associate Professor (Clinical) Assistant Professor P.A. Krusinski.

A one month elective in Dermatology is offered to senior students. Space permitting, this can be taken in the offices of local dermatologists or at one of several excellent teaching centers elsewhere. Emphasis is on recognition and management of common dermatological problems.

The Department of Neurology


The Department of Neurology provides instruction to undergraduate students in diseases of the nervous system and sponsors a graduate residency training program in Neurology at the affiliated hospital. Interns may rotate through the neurological service, resident physicians assist in the instruction of students, and specialty conferences concerned with selected disorders of the nervous system are scheduled weekly. The staff consists of the Chairman and 10 full-time clinical teachers and seven resident neurologists. The Department is concerned with primary and consultative patient care, clinical research, teaching at undergraduate and post-graduate levels and participation in clinics and regional hospitals as consultants. The Department includes a Communicative Disorders unit which provides instruction at all levels in learning dis-
abilities, speech pathology, audiology and related problems.

**BASIC SCIENCE CORE**

In the context of the integrated course, Basic Clerkship, members of the staff provide a brief review of neurophysiology, demonstrate and explain methods of neurological diagnosis, discuss ancillary laboratory techniques, and supervise student performances of bedside neurological examinations.

**MAJOR PROGRAM**

Elective periods of research or clinical work in Neurology are available to senior students. In addition to adult clinical neurology, child neurology, communicative disorders, consultation service and electrodiagnostic laboratory are available. Instruction is carried out on both in- and outpatients of the Neurology Service at the Medical Center Hospital and the Champlain Valley Physicians Medical Center, Plattsburgh, N.Y. Small groups of students are assigned to newly-admitted patients, obtaining complete neurologic histories and performing neurologic examinations. The students' diagnostic formulation and plan of management are reviewed by neurology house officers and staff. Students attend the regularly scheduled didactic exercises and conferences.

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**The Department of Obstetrics and Gynecology**

*Chairman:* John Van S. Maeck, M.D.; *Associate Chairman:* Herbert A. Durfee, Jr., M.D.; Professors: Durfee, Gray, Maeck; Professor Emeritus, Slavin; Professors (Clinical) Burchell, Cause, Solomon (Endocrinology); Associate Professors: Boardman, Meeker, Sims, Lewis; Assistant Professors: Braun, Clapp, Mead, Silberman; Assistant Professors (Clinical) Cannon, Russo, Taber, Thabault, Davis, Mazur, Murphy, Granai, Romeyn; Assistant Professor (Nurse-Midwifery) Mantz.

**BASIC SCIENCE CORE**

Members of the Clinical Faculty of Obstetrics and Gynecology in association with the Basic Science Faculty present appropriate clinically oriented material in anatomy, pathology, community medicine seminars, sex education and the basic clerkship.

**CLINICAL SCIENCE CORE**

The Clinical Core Program in Obstetrics and Gynecology comprises 8 weeks with rotations through obstetrics, gynecology and the ambulatory clinics. The clinical experience is supplemented by frequent small group discussions with faculty members, resident seminars, student seminars, radiology review, grand rounds and staff meetings. The fundamentals of female reproduction, psychosexual problems, physiology, pathology and management of problems are taught primarily by problem finding and problem solving through the use of clinical material. The specialized techniques of operative obstetrics and gynecology are not stressed. It is deemed important however, to expose each medical student to the birth process and to ensure an understanding of reproductive physiology and its implications in medicine and society. During the rotation on gynecology, the student has the opportunity to experience the use of the totally computerized problem oriented medical record through the facilities of the PROMIS Laboratory.
At the end of his experience in the Obs-Gyn Core Program, it is expected that in addition to being able to take a general medical history and perform a general physical examination, the student will be able to diagnose pregnancy, adequately examine the breast, pelvis, rectum, and will have acquired the necessary skill to perform simple diagnostic tests such as the proper collection of material for cytologic smear and for the detection of gynecologic infection.

**SENIOR MAJOR PROGRAM**

The Department of Obstetrics and Gynecology offers a Senior Major Program for those students interested in a career in OBS-GYN. Additional one month rotations in obstetrics, gynecology, ambulatory patient OBS-GYN and extramural programs are available for students from other Senior Major Programs.

**The Department of Orthopaedic Surgery**

*Chairman:* Franklin T. Hoaglund, M.D., Professor Hoaglund; Associate Professors: Frymoyer Wuthier; Assistant Professors Johnson, Moreland, Pope; Professors (Clinical): Kuhlman and Rust; Associate Professors (Clinical): Bell, P. Davis and Molloy; Assistant Professor (Clinical) Simpson.

Orthopaedic Surgery covers a broad field of medicine which is concerned with diseases, deformities, and injuries involving the musculo-skeletal system. The Department of Orthopaedic Surgery has as its prime responsibility the instruction of medical students, house staff, as well as nurses and therapists, in the diagnosis, prevention, and management of problems as related to the musculo-skeletal system. The Department is involved in ongoing research programs, both basic and clinical, in the areas of arthritis, traumatic injury, and rehabilitation. All members of the Department are involved in acute and chronic patient care. There is a fully approved orthopaedic residency training program at the Medical Center Hospital of Vermont for eight residents in children’s and adults’ orthopaedics, as well as trauma.

Members of the Orthopaedic Department staff and orthopaedic residents participate in the teaching of medical students in all four years of the curriculum. Members of the staff, including orthopaedic residents, participate in the teaching of anatomy. Lectures are given in physical diagnosis of musculo-skeletal disease and deformity in the Introduction to Clinical Disciplines.

Students are assigned to Orthopaedic Surgery during the Clinical Science Core for both didactic instruction and for the opportunity to examine orthopaedic inpatients and participate in their treatment. Students attend the children’s orthopaedic clinic and the general orthopaedic outpatient clinic. Students have regular assignments in the care of patients in the emergency room and are encouraged to participate in the operating theater.

Electives are open to interested students during the senior year or the major elective period. At this time there is further opportunity to participate in the care of both inpatient and outpatient orthopaedic patients and to assist as members of the operating team. Limited facilities are available for interested students to pursue both basic and clinical research.
The Department of Pathology and Oncology

Chairman: John E. Craighead, M.D.; Professors Andrews, Clemmons, Craighead, Korson, Kusserow, Luginbuhl, Stark, Trainer; Associate Professors Buttles, Harris, Howard, Taylor, Toolan (Experimental Pathology); Assistant Professors MacPherson, Tihen, Whitcomb.

The interests and responsibilities of the Pathology faculty include teaching, research, and the practice of both anatomic 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, interns and residents to the study of disease in all of its manifestations.

BASIC SCIENCE CORE

The major course in Pathology is presented as a part of the Basic Science Core and is designed to present a concentrated yet comprehensive view of disease in sufficient depth to prepare the student adequately for subsequent clinical studies. Fundamental principles are emphasized and structural, functional, and clinical correlations are stressed.

Although the organization of the course involves the traditional division into general and special pathology, the emphasis is considerably modified. Pathophysiological correlations are stressed. The teaching format varies from formal lectures to small informal discussion groups. A Student is encouraged and assisted to develop for himself a pattern of self education. Extensive use is made of clinical case studies, slides, gross material (both fresh and preserved) and visual aids.

Instruction in clinical pathology is correlated with the work in general and special pathology. It 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 correlation of the data with other clinical findings.

CLINICAL SCIENCE CORE

During the Clinical Science Core, the Department of Pathology cooperates with other departments in providing instruction. This includes collaborating on and presenting departmental and specialty conferences, clinical pathological conferences, consultation on clinical problems, and supervision of laboratory tests performed by medical students on patients assigned for their study.

MAJOR PROGRAM

The Department has appropriate courses in pathology for both "majors" in pathology and those in other clinical departments. Elective courses primarily provide in-depth instruction in selected areas of pathology. On the other hand, for those students particularly interested in pathology there is an opportunity for greater exposure to the field while at the same time continuing their in-breadth education as physicians.
The Department of Pediatrics

Chairman: R. James McKay, Jr., M.D. Professors Lucey and McKay; Associate Professors C. F. Phillips; Associate Professors (Clinical) Gentry, Hodgkin, McKee, Paxson, and Stackpole; Assistant Professors Colletti, Dickerman and Young; Assistant Professors (Clinical) Bates, R.K. Bergner, Elizabeth Clark, Murray, Narkewicz, Swartz; Instructors (Clinical) Ellerson, Holmes, F. Ryan, Tanner, Trumper, Wolk and Wright.

The Department seeks through its required course to give each student a grounding in pediatrics which will enable him or her to handle children successfully in whatever branch of medicine is eventually practiced by the student. Particular emphasis is put on doctor-child-parent relationships.

The Department also takes the responsibility for pediatric training of interns and residents in the Medical Center Hospital of Vermont in Burlington.

CLINICAL CORE

A two-month clinical clerkship. Each student spends one month participating actively in the care of inpatients on the pediatric service of the Medical Center Hospital of Vermont and another month in ambulatory patient care activities. Daily teaching rounds are held on the inpatient service. The ambulatory care experience includes two weeks in the office of a practicing pediatrician and two weeks of clinics.

MAJOR PROGRAM

Sixteen one-month rotations, up to three months of which may be taken as vacation. Required rotations include the two-month interdepartmental course on basic mechanisms of disease, one month each as an acting intern on the pediatric floor and in the intensive care nursery of the Medical Center Hospital of Vermont, two weeks of preceptorship with a practicing pediatrician outside of Burlington, and one month of individually tailored clinic experience. The remaining rotations are elective but subject to approval by the Department.

ELECTIVE COURSES

Elective rotations are offered in ambulatory and community pediatrics, hospital pediatrics, neonatal pediatrics, and pediatric practice. Electives are also offered by the respective departments in pediatric neurology, orthopedics, psychiatry, radiology and surgery, and by the Department of Medicine in pediatric cardiology.

The Department of Pharmacology

Chairman: Durwood J. Smith, M.D. Professors Gans, Jaffe, Macmillan (Dean of Graduate College), Maxwell (Visiting), Smith; Associate Professors McCormack, Reit and Robinson, Doremus (Director of Animal Services).

BASIC SCIENCE CORE

The pharmacology course for medical students is taught during the first period of the second year. By means of lectures and small group conferences, the course surveys the principal classes of therapeutic agents and stresses the basic principles of pharmacodynamics and drug action. Then, in large group discussions, these are reexamined from a clinical standpoint utilizing appropriate case studies.

GRADUATE COLLEGE COURSES

The Department of Pharmacology offers graduate programs leading to the degree of either Master of Science or Doctor of Philosophy. Facilities are also available for inter-
ested medical students to do research in cooperation with members of the staff as part of either degree program.


290 INTRODUCTION TO PHARMACOLOGY. Consideration of the factors which determine the efficacy and safety of drugs with emphasis on representative agents used in medicine. A broad range of systemic pharmacology will be considered: Neuropharmacology, cardiovascular, endocrine and metabolic pharmacology and chemotherapy. Prerequisites: Introductory course in organic chemistry (Chem. 4, 16 or 131-132) and background in biology or health sciences. 3 hours. Staff.

301 PHARMACOLOGY. This is the course given in the medical curriculum, with such modifications for individual graduate student as are required. Six credit hours. Staff.

328 INTRODUCTION TO MEDICINAL CHEMISTRY. Therapeutically important classes of drugs are surveyed stressing synthesis, relationships between physicochemical properties and pharmacological activity and methods used to evaluate drug action. Prerequisite: Chemistry 131-132. Open to undergraduates with permission of the instructors. Two credit hours. Dr. McCormack.

372 SPECIAL TOPICS IN PHARMACOLOGY. Topics of current interest and importance in pharmacology are considered in depth through presentations by graduate students, staff, and visiting scientists. One credit hour per semester. Staff.

381 SEMINAR. Current developments in pharmacology are presented by students as formal lectures. Organized surveys of selected fields may also be presented upon request. One credit hour per semester. Staff.

391 through 399. MASTER'S THESIS RESEARCH. Directed research culminating in an acceptable thesis. Credit as arranged.

491 through 499. DOCTORAL THESIS RESEARCH. Directed research culminating in an acceptable thesis. Credit as arranged.

The Department of Physiology and Biophysics

Chairman: Norman R. Alpert, Ph.D.; Professors Alpert, Chambers, McCrorey and Parsons; Associate Professors Hendley, Low, Webb and Whitehorn; Assistant Professors Gibbons, Halpern and Hamrell; Research Associates and Fellows Lucchina, McNall, B. Mulieri, L. Mulieri and Thomas.

BASIC SCIENCE CORE

MEDICAL PHYSIOLOGY AND BIOPHYSICS. Physiology and Biophysics is taught as a science to the first-year medical students, in the second and third trimester, with emphasis on the broad physical, chemical and biological principles underlying the function of mammalian organs, tissues and subcellular systems. Special stress is placed on these fundamental principles important for understanding clinical medicine and research. The core course consisting of 120 hours is made up of lectures, demonstrations, workshops, and conferences.
NEUROSCIENCE. The core course in neuroscience outlines morphological and physiological features of the neuron and the central nervous system. The functional significance of structure is emphasized throughout, in order to prepare the student for intelligent diagnosis and localization of neural disorders in the clinical sciences. The core course in Neuroscience consists of 100 hours of lectures, demonstrations, conferences and laboratories and is the joint responsibility of the Anatomy and Physiology departments.

MAJOR PROGRAM
There is a vigorous graduate and research program in the Department. Medical students may participate in advanced seminars, as well as in various research projects. For details regarding formal participation in this program see Dr. Norman R. Alpert.

GRADUATE COLLEGE COURSES
Under special circumstances medical students may take advantage of the opportunity for graduate study leading to a Doctor of Philosophy degree. For further details on the graduate program see the catalogue of the Graduate College or write for the Department's brochure. A number of fellowships are available for summer research or graduate study.

In addition to research opportunities and tutorial programs dealing with special problems in Physiology, the Department offers a number of formal courses. These include: Biometrics and Applied Statistics, The Physiology of Synaptic and Conducting Membranes, The Molecular Basis of Biological Motility, Special Sense Receptors, The Physiology and Biophysics of the Circulation, The Physiology and Pharmacology of Synapses, The Physiology of the Central Nervous System, Cellular Physiology and Biophysics, and Principles and Elements of Biomedical Instrumentation. For more details regarding this program inquiries should be made at the Department office.

The Department of Psychiatry

Chairman: Sheldon Weiner, M.D.; Professors McKegney and Huessy; Professors (Clinical) Brooks, J. Cohen; Associate Professors Grant, McAree, Rowaris, Weiner, Woodruff; Associate Professors (Clinical) Hyde, Laqueur and Leitenberg (Psychology); Assistant Professors Ives, Oliveau, Shaw, Siegel, Weaver (Psychology), Willmuth and Wright; Assistant Professors (Clinical) McGinnis, Rife, Todd, Toolau, Curtis, Danielson, Jamison, Floyd, S. Cohen, Marshall, Sharpe; Instructors (Clinical) Burnham, Covey, Massonneau, Sommer, Stark, O'Shea.
The basic mission of this Department of Psychiatry is to learn and teach those attitudes, skills and knowledge which will enable all health professionals to observe, understand, and respond appropriately, through treatment interventions, to the behavior of those for whom they have professional responsibility. In carrying out this mission, our highest priority is to educate medical students, whatever their eventual professional role. A second priority is the education of physicians and other practicing health professionals in their care of patients. Included in this category are psychiatric residents who will be identified as physicians, trained to function as consultants, teachers, and managers within a health care system, as well as to have the basic skills of a specialist in psychiatry. Of parallel importance in carrying out this basic mission is the maintenance of clinical care programs appropriate to our educational goals.

A residency program is approved for three years of training by the Council on Medical Education of the American Medical Association. Residents rotate through several services of the general hospital. Affiliations with community agencies and other activities are also available in the residency training program. In addition to the regular clinical teaching and conferences in the hospitals, an academic program of seminar instruction and individual supervision is offered. An approved program in child and adolescent psychiatry is also available.

BASIC SCIENCE CORE
311-312 HUMAN BEHAVIOR. This general course for freshman medical students emphasizes an interdisciplinary and scientific approach to the observation and understanding of human behavior. It focuses on the multiple factors which influence an individual’s behavior within his psychosocial environment, with its implications for adaptation, health and illness and the role of the physician.

CLINICAL SCIENCE CORE
PSYCHIATRY. This is the principal clinical course in psychiatry and consists of an eight week block assignment to a psychiatric clinical service. The student is expected to: identify the major psychosocial clinical problems, to understand and utilize the major organic and psychotherapeutic intervention techniques, to utilize the problem oriented patient care record system, and to demonstrate his ability to function as a member of the health care team. Included within the clinical core program are didactic seminars in interviewing technique, nosology, descriptive psychology and psychologic and somatic treatment interventions.
SENIOR MAJOR PROGRAM

The Psychiatry Senior Major Program has been designed to (1) prepare students for specialization in psychiatry and (2) provide an intensive experience in specific areas for those students planning to enter other fields of clinical care or research. The specific objectives which are detailed below are based upon that body of knowledge, attitudes and skills which have comprised the human behavior and psychopathology courses and the psychiatric clinical rotation. As indicated, the senior major program consists of both required and elective components. The optimal output of this program will be the ability of the senior major student contemplating a career in psychiatry to function at the level of a beginning 1st year psychiatric resident upon completion of the full program and for the non-psychiatric physician to be able to obtain a psychosocial data base, formulate an appropriate assessment and define an immediate plan of intervention.

Senior Major students are expected to take on the role of an acting psychiatric resident while on the various rotations at the Medical Center Hospital of Vermont. As acting residents, students are expected to collect both subjective and objective data, define and evaluate the patient’s problems, develop and carry out plans for each problem, and arrange appropriate follow-up. Senior majors ordinarily carry about half the patient load of a resident and function under the close supervision of attendings and senior residents.

The Department of Radiology

Chairman: John P. Tampas, M.D. Professors Foley, Janney (Radiologic Physics), Peterson (Retired), Ring, Roth (Electrical Engineering), Soule (Emeritus), Tampas, VanBuskirk and Hunziker; Associate Professors Brown, Clements, Heilman, and Kupic; Assistant Professors Dietrich, Johnston, Mindell, Saxby, Holm and Ratkovits; Lecturer Harwood (Radiologic Physics).

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 and isotope technicians receive instruction by members of this Department.

Twelve 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 Medicine, fluoroscopic demonstrations of the chest and alimentary tract are conducted at the hospitals. During the first part of the second year, students are instructed in the principles of diagnostic and therapeutic radiology. During the clinical core numerous conferences are held in conjunction with the various clinical departments. An elective in radiology and in its various subspecialties is offered during the final year.

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

The Department of Rehabilitation Medicine

Chairman: Raymond L. Milhous, M.D., Professor Milhous; Associate Professors Ford and Golodetz; Assistant Professor Ruess.

PROGRAM OF INSTRUCTION

Rehabilitation Medicine is the management of patients with severe medical and physical
disabilities. Emphasis is placed on systematic evaluation, followthrough, and patient education concerning medical, psycho-social and functional problems utilizing the entire health care team. The physician is involved as manager of medical problems and coordinator of the health care team. Instruction is carried out at all levels in the medical curriculum.

BASIC SCIENCE CORE

The Department faculty participate in the Basic Clerkship program of the College of Medicine.

CLINICAL CORE

Students are placed on the Rehabilitation Medicine Inpatient Service for one month of their instruction in Medicine.

SENIOR MAJOR

The Department offers a major in Rehabilitation Medicine and an elective Acting Internship in Rehabilitation Medicine, tailored to meet the student's individual career goals.

Department officers are located on the first floor of the Rehabilitation Wing, DeGoesbriand Unit, MCHV, Room 1313.

The Department of Surgery

Chairman: John H. Davis, M.D. Professors Abrams, Davis and Page; Professors (Emeritus) Gladstone and Mackay; Associate Professors Barney (Plastic), Foster, Haines (Oncology), Koplewitz and Pilcher; Assistant Professors Cain, Coil, Keller, Linton (Plastic), McGill and Shea; Assistant Professors (Clinical) Bunker, McSweeney and Thabault.

In addition to developing and implementing the surgical curriculum in the College of Medicine, the Department of Surgery is responsible for the training of interns and surgical residents at the Medical Center Hospital of Vermont. The Department consists of the following Sections: Anesthesiology, Neurosurgery, Ophthalmology, Oral Surgery, Otolaryngology, Pediatric Surgery, Thoracic and Cardiac Surgery and Urology.

BASIC SCIENCE CORE

Members of the staff of the Department of Surgery participate in the multidiscipline Basic Clerkship.

CLINICAL SCIENCE CORE

The twelve-week core program in clinical surgery emphasizes the hospital care of patients with surgical illnesses. Students assigned to a surgical floor work as members of a team that includes the intern, resident staff and attending surgeons. The student is responsible for the initial history and physical examination of patients assigned to him and participates in all aspects of patient care, including operative procedures. Continuity of care is stressed. Instruction in general surgery is at the bedside; didactic material is presented by the staff of the specialty sections. Students take night and weekend call with the members of their house staff team.
MAJOR PROGRAM

The Department of Surgery offers a Major Program to students seeking a career in general surgery or a surgical specialty. Three months are spent in a basic science review that is oriented to clinical surgical practice. Under the guidance of an advisor from the surgical faculty, students elect from a variety of programs in surgery or in other departments within the College, including the Basic Science Departments. Students are encouraged to take elective rotations at hospitals elsewhere. An opportunity to participate in ongoing research projects within the Department of Surgery is available.

Section of Anesthesiology

Chairman: John Abajian, Jr., M.D. Professor Abajian; Professors Dente and Mazuzan; Associate Professors (Clinical) Abajian, Deane, Morgan and Shinozaki; Assistant Professors Bell, Hartford, Jedeikin, Pease and Perkins.

Clinical core instruction will be confined to intensive, small-group, operating room didactic and practical experience. A one-month elective program for Senior Major students is available on the surgical rotation. This time may be spent on intensive respiratory care with the Respiratory Therapy group. Weekly anesthesia conferences are open to students. The resident training program consists of the appointment of six residents for two or three years.

Section of Neurosurgery

Chairman: R. M. Peardon Donaghy, M.D. Professors Donaghy and Wallman; Associate Professor Flanagan.

The Section of Neurosurgery 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.

A Summer Fellowship is open to a student who desires a two-to-three-month period of laboratory work and who can demonstrate a satisfactory basic knowledge of the nervous system, its anatomy, chemistry and physiology.

A six-year residency program for physicians interested in neurosurgery is maintained, consisting of one year of general surgery, one year of neurology or neurological science, and four years of neurosurgery – one of which must be in laboratory or clinical research.

A Fellowship of one year is also provided for a graduate of a residency program interested in acquiring the peculiar techniques of micro-neurosurgery.

The teaching sessions incident to both the resident and fellowship programs may be open on application to the student who satisfactorily demonstrates an interest in and knowledge of the nervous system.
Section of Ophthalmology

Acting Chairman: Edward S. Irwin, M.D. Professor (Clinical) (Emeritus) Twitchell; Associate Professor (Clinical) Irwin; Assistant Professors (Clinical) Chase, Guiduli, Kleh and Lawlor.

CLINICAL SCIENCE CORE

The Section of Ophthalmology and the Section of Otolaryngology participate in the Basic Clerkship.

MAJOR PROGRAM

In the Major Program, elective courses will be offered. These courses involve interdisciplinary arrangements with other departments as needed. An elective course may be individualized to the needs of the student.

Section of Oral Surgery

Chairman: John Farnham, M.D. Professor Farnham. (Clinical) Instructor Schein, Galbraith, Lawrence, Levi, Jr., Maclellan, Preston, Reed, Watson, Bowen, Lampert, Richardson.

Section of Otolaryngology

Chairman: John M. McGinnis, Jr., M.D. Professor (Clinical) (Emeritus) Lathrop; Associate Professor McGinnis; Assistant Professor (Clinical) Goldsborough; Instructor (Clinical) Randhawa.

CLINICAL SCIENCE CORE

The Section of Otolaryngology participates in the Basic Clerkship portion of the Basic Science Core.

MAJOR PROGRAM

During the Clinical Science Core didactic lectures are given, as well as two-week Clinical Clerkship rotations which include experience in the otolaryngology office and clinics as well as inpatient ward experience.

Senior majors in surgery, pediatrics, family medicine, etc., rotate through the section in programs individualized to the needs and desires of the particular student.

The Section offers an approved residency in otolaryngology and participates in the training of house staff from other residency programs.

Section of Pediatric Surgery

Chairman: R. W. Paul Mellish, M.B., B.S. Professor Mellish; Assistant Professor Browdie.

The Section of Pediatric Surgery aims to provide optimum surgical care for children in the hospitals of the University of Vermont Medical Center. A consultative service for other departments, practicing physicians and the State Department of Health has been developed.

The teaching program complements the general surgical courses with demonstrations and lectures for the third-year students designed to enable them to recognize pediatric surgical problems. Tutorial sessions are held at both Units of the local hospital. These are directed toward case presentation by the students. Pediatric surgical rounds are made daily at each Unit. A Pediatric Surgical Conference is held once a week with multidiscipline discussion of pediatric surgical problems. In the fourth year, the students may take an elective in pediatric surgery.

The service is integrated with the general surgical residency program and works closely with the Department of Pediatrics in the care of patients.
Section of Thoracic and Cardiac Surgery

Chairman: Laurence H. Coffin, M.D. Associate Professors Coffin and Miller; Assistant Professors DeMeules, Browdie.

The thoracic surgeon is a specialist in disease within the chest, who also performs surgery. The teaching program of Thoracic and Cardiac Surgery emphasizes the dynamic interplay of medical sciences and humanities in achieving optimal patient care. Sponsored formal meetings include a weekly combined medical-surgical conference, a monthly thoracic X-ray review, a monthly Thoracic Surgical Pathology Conference, combined conferences with the Cardiopulmonary Division, and cardiac surgery workshops. Formal lectures are kept to a minimum, with preferential teaching on rounds, “spot seminars,” and student tutorials. The students participate actively in work-up and presentation of patients, in surgery (including open-heart) and in postoperative management.

Diagnostic activities include the more sophisticated assessment of coronary and other heart disease, as well as conventional procedures in thoracic and cardiovascular problems. Techniques in diagnosis and in disease evaluation are under constant research and development. The clinical program includes all phases of thoracic and cardiovascular disease in the two units of the Medical Center Hospital, as well as related consultative programs at the Vermont Sanitarium in Pittsford, and the Barre Chest Clinic.

Operative programs, in addition to conventional thoracic procedures, include cardiopulmonary by-pass for open-heart surgery. Postoperative care involves the required attention to customary problems and, in addition, intensive postoperative management of serious problems, including Special Care Unit. The research program is concerned with all facets of cardiovascular pulmonary disease and shock. Both experimental and clinical investigative problems relate to open-heart surgery, to postpump syndromes, the modification of existing and development of new prosthetic valves, postoperative assessment of cardiac and of pulmonary function after surgery and shock. A broad program in coronary surgery, integrated with other departments within the medical school, is under development. Summer student fellowships are available each year in all programs.

Section of Urology

Chairman: Guy W. Leadbetter, Jr., M.D. Professors Leadbetter and Powell; Associate Professor Fagan; Assistant Professor Morrisseau.

Didactic lectures are largely supplemented by tutorial sessions with smaller groups, briefly reviewing and clarifying puzzling aspects of material to be covered.

A three-year approved urological residency program has been operational for a number of years with clinical and research material gathered from both Units of the teaching hospital and the College of Medicine research unit. Research projects in recent years have been carried out in cinefluorography, hypertension, microsurgery of ureter and vas deferens, and so forth.

Interns are assigned to Urology in both Units and participate in teaching and conferences.
Academic Divisions and Colleges of the University of Vermont

DIVISION OF HEALTH SCIENCES ADMINISTRATION
William H. Luginbuhl, M.D.  Dean
John H. Davis, M.D.  Associate Dean
H. Charles Hill, D.D.S.  Associate Dean
Ben R. Forsyth, M.D.  Associate Dean
Calvin D. Cowles  Director of Administration
Jean B. Milligan, Ed.D.  Director

WASHINGTON COLLEGE OF MEDICINE
William H. Luginbuhl, M.D.  Dean
David M. Tormey, M.D.  Associate Dean for Admissions and Student Affairs
Raymond I. Milhouse, M.D.  Associate Dean for Continuing Clinical Education

THE SCHOOL OF NURSING
Jean B. Milligan, Ed.D., Director
The School of Nursing offers a four-academic-year curriculum leading to the degree of Bachelor of Science, a two-year program leading to the degree Associate in Science, and a non-degree Family Nurse Practitioner Program.

THE SCHOOL OF ALLIED HEALTH SCIENCES
H. Charles Hill, D.D.S., Director
The School of Allied Health Sciences offers Associate Degrees for programs in Dental Hygiene, Radiologic Technology, and Medical Laboratory Technician. Bachelor of Science degrees are offered in Medical Technology and Physical Therapy.

Standing Committees

ADMISSIONS COMMITTEE

ADVANCEMENT COMMITTEE

CURRICULUM COMMITTEE

FACULTY STANDARDS AND PROMOTION COMMITTEE
C. A. Phillips (Chairman), S. L. Burns, R. L. Parsons, M. A. Reardon, R. G. Westphal.

GRADUATE EDUCATION COMMITTEE
W. Schaeffer (Chairman), R. Gibbons, P. Schofield, L. Soyka, W. J. Young.

GRADUATE MEDICAL EDUCATION COMMITTEE

RESEARCH COMMITTEE
G. Green (Chairman), R. Bouchard, W. Schaeffer, B. Forsyth, R. Foster, D. Smith, J. Jaffe.

MICROSCOPE COMMITTEE
T. Moehring (Chairman), R. Horst, T. Trainer.
Class of 1975

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   West Roxbury, Ma.
Ellen M. Andrews, Boston University; Wollaston, Ma.
Roy J. Bergquist, Carleton University; Bennington, Vt.
Paul T. Berry, St. Michael's College; South Burlington, Vt.
Palmer Q. Bessey, Jr., Williams College; Cotuit, Ma.
John W. Blute, Jr., University of Notre Dame;
   Danvers, Ma.
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   Manchester Center, Vt.
Michael B. Bruhl, University of Montreal, Burlington, Vt.
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   Granby, Ma.
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   Cape Elizabeth, Me.
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   Bowdoinham, Me.
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   Natick, Ma.
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Class of 1976

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George F. Murphy, Jr., University of Pennsylvania; Franklin, Ma.
Donald L. Nahigian, Jr., University of North Carolina; Mattapoisett, Ma.
Allen L. Neese, David Lipscomb College; Moro, Ill.
Ralph A. Nixon, Jr., Brandeis University; Norwood, Ma.
David T. Noyes, Cornell; Raynham, Ma.
Arthur Palladino, Jr., Columbia University; Arlington, Ma.
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John G. Perrault, Jr., University of Massachusetts; Hanover, Ma.
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Douglas E. Dennett, Bowdoin; Dixfield, Me.
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David C. Drinkwater, Jr., Harvard; Shelburne, Vt.
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Anita Feins, Simmons College; Manchester, N.H.
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Gary A. Gable, U.V.M.; South Burlington, Vt.
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Michael L. Gerrity, Holy Cross; Dover, Ma.
James A. Gilbert, Jr., U.V.M.; Fair Haven, Vt.
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James J. Hershon, Colgate; Andover, Ma.
William F. Hickey, Tufts University; Houlton, Me.
Peter S. Hopwood, Holy Cross; Dover, Ma.
Leonard H. Horovitz, Brown University; East Providence, R.I.
Robert B. Smith, University of Pennsylvania; Lowell, Ma.
Marga S. Sproul, Radcliffe; Johnson, Vt.
Tom S. Stevens, University of Wisconsin; Freetown, Sierra Leone, W.A.
Paul W. Temple, University of Connecticut; Chester Depot, Vt.
David A. Trace, U.S. Naval Academy; Rochester, N.H.
Henry R. Vaillancourt, Providence College; Fall River, Ma.
George M. Walker, Bowdoin College; Lunenburg, Ma.
Peter D. Wilk, Harvard College; Newport, R.I.
Dennis J. Wyman, U.V.M.; Reading, Vt.
Mark S. Yerby, University of New Hampshire; South Burlington, Vt.

Jane E. Zakrzewski, Radcliffe; Ruston, La.
Thomas J. Zakrzewski, Harvard University; Abington, Ma.
Matthew R. Zetumer, Colgate; Harrison, Me.

Class of 1977

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Kevin J. Berry, U.V.M.; South Burlington, Vt.
Peter F. Blakey, Harvard University; Lynnfield, Ma.
Samuel B. Broadus, Bowdoin College; Westbrook, Me.
David C. Calica, Dartmouth College; Barre, Vt.
Alister B. Campbell, Williams College; Williamstown, Ma.
Maya Chatterjee, University of New Hampshire; Brunswick, Me.
Mary L. Davis, U.V.M.; Rutland, Vt.
William A. DeBassio, Holy Cross College; Marshfield, Ma.
Ronald B. Donnett, Wesleyan University; Great Neck, N.Y.
Peter J. Dillon, Middlebury College; Burlington, Vt.
Susan Edelstein, Queens College; Flushing, N.Y.
John C. Ferguson, Middlebury College; South Burlington, Vt.
Michael J. Finkowski, Harvard College; South Deerfield, Ma.
William D. Flanders, U.V.M.; Essex Junction, Vt.
Kathleen L. Franklin, U.V.M.; Chicago, Il.
Alan Freedman, University of Maine; Orono, Ma.
Michael A. Galica, Dartmouth College; Westborough, Ma.
Lawrence E. Garbo, U.V.M.; Burlington, Vt.
William P. Gifford, University of New Hampshire; Starksboro, Vt.
Louise B. Godine, Radcliffe College; Chestnut Hill, Ma.
Cornelius O. Granai, U.V.M.; Barre, Vt.
David P. Granger, St. Michael's College; Burlington, Vt.
Ruth K. Grant, Elmira College; Vergennes, Vt.
Paul R. Gustafson, Northeastern University; Taunton, Ma.
Alvanus H. Hartley, College of William and Mary; Cumberland, R.I.
Rowland G. Hazard, Harvard University; Burlington, Vt.
Barry W. Heath, Dartmouth College; Newport, Vt.
James C. Hebert, Holy Cross College; Waterville, Me.
Charles H. Herr, Yale University; South Newbury, Vt.
William F. Hickey, Tufts University; Houlton, Me.
Roger L. Jenkins, University of Massachusetts; Andover, Ma.
Andrew A. Jeon, Bowdoin College; Medfield, Ma.
Kirk H. Johnson, Tufts University; Holden, Ma.
David L. Kaye, Johns Hopkins University; Highland Park, Il.
John G. Kenerson, Holy Cross College; Hull, Ma.
David B. Lash, Duke University; Burlington, Vt.
Kurt Lauenstein, Harvard College; Wenham, Ma.
James F. Leland; Earlham College; Montpelier, Vt.
Paul K. Lewis, Jr, U.V.M.; Peacham, Vt.
Scott J. MacDonald, U.V.M.; Barre, Vt.
Brian D. Mahoney, Wesleyan University; Potomac, Md.
Denise M. Main, Yale University; Brownsville, Vt.
Elliott K. Main, Yale University; Windsor, Vt.
Barry C. Malinowski, Harvard College; Abington, Ma.
Mary E. Maloney, Connecticut College; Vergennes, Vt.
Delia M. Manjoney, Roanoke College; Trumbull, Ct.
Mark M. Maslack, U.V.M.; Center Rutland, Vt.
Allan C. McLean, Dartmouth College; Falmouth, Me.
Michael T. McNamara, Holy Cross College;
Garden City, N.Y.
Robert S. McWilliam U.V.M.; Barre, Vt.
James A. Merritt, Johns Hopkins University;
Wyoming, Oh.
Harry C. Midgley, III, Hobart College; Bennington, Vt.
Mark R. Mondano, Yale University; Lexington, Ma.
Mark Novotny, Cornell University; Belmont, Ma.
David A. Nye, Dartmouth College; Norwich, Vt.
Paul E. Palumbo, Holy Cross College; Framingham, Ma.
Mark Pecevich, Colby College; Beverly, Ma.
Peter Z. Perrault, Yale University; Pittsfield, Ma.
John G. Perrault, University of Massachusetts;
Hanover, Mass.
Gail J. Povar, Cornell University; Rumford, R.I.
Joseph Quan, Bowdoin College; Brookline, Ma.
Guy G. Raymond, Assumption College; Frenchville, Me.
John M. Raymond, U.V.M.; East Montpelier, Vt.
John R. Redman, Bowdoin College; Augusta, Me.

Karen R. Reeves, Yale University; Auburn, Me.
Bruce H. Renfrew, U.V.M.; Northfield, Vt.
Gary Robinson, Johns Hopkins University; Windsor, Vt.
Charles P. Rogers, University of Pennsylvania;
Cambridge, Ma.
John E. Rowe, Harvard College; Burlington, Vt.
Robert H. Sawyer, Dartmouth College; Richmond, Ma.
Aryeh Shander, Queens College; New York, N.Y.
Frederic E. Shaw, Jr., University of New Hampshire;
Nashua, N.H.
Donald F. Shea, University of Notre Dame;
Bennington, Vt.
Richard L. Staley, San Diego State College;
San Diego, Ca.
Kenneth A. Stevens, Carnegie-Mellon University;
South Portland, Me.
Frank O. Thomas, U.V.M.; Essex, Vt.
Gary S. Towne, Yale University; Underhill, Vt.
Brenda Waters, U.V.M.; Burlington, Vt.
Anthony R. Watson, University of Michigan; Chelsea, Vt.
Richard E. Wild, Dartmouth College; Cranston, R.I.
Jane M. Wolf, Radcliffe College; Portland, Me.
Howard I. Yeaton, Boston University; Winthrop, Me.
Class of 1978

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John E. Alexander, Harvard University; Medford, Ma.
John J. Ambrosino, Tufts University; Brockton, Ma.
Andrew J. Arrison, Tufts University; Springfield, Vt.
Barbara L. Belcher, U.V.M.; Granville, Vt.
Gary E. Borodic, University of R.I.; Providence, R.I.
Charlotte G. Borst, Boston University; Rutland, Vt.
Anne A. Brewer, Brown University; Providence, R.I.
Karen H. Burke, Middlebury College; Essex Jct., Vt.
Richard M. Caggiano, University of Massachusetts; Woburn, Ma.

Raymond A. Chagnon, Assumption College; Woonsocket, R.I.
Andrew C. Chester, Harvard University; Wellesley, Ma.
Nancy M. Collins, Wesleyan University; Middletown, Vt.
Paul M. Costello, U.V.M.; Burlington, Vt.
Judith A. Crowell, Mount Holyoke College; Essex Jct., Vt.
Cheryl L. Davis, U.V.M.; Shelburne, Vt.
Sherry A. Dickstein, Smith College; Portland, Me.
Anne D. Ehrlich, U.V.M.; Burlington, Vt.
Robert S. Feins, Tufts University; Manchester, N.H.
Angela E. Franklin, U.V.M.; Chicago, Ill.
Joyce S. Goodlatte, SUNY at Stony Brook; Putney, Vt.
William E. Harding, Williams College; Danvers, Ma.
Jonathan B. Hayden, Amherst College; Yarmouth, Me.
Anne H. Haydock, U.V.M.; Burlington, Vt.
John H. Healey, Yale University; West Newton, Ma.
Edwin J. Hefferman, Amherst College; Wells Beach, Me.
Mark E. Helms, U. Maine at Orono; Portland, Me.
Anita Henderson, Smith College; Providence, R.I.
Michael R. Hermans, Bowdoin College; Kennebunk, Me.
Peggy J. Howrigan, Bennington College; Swanton, Vt.
Judith A. Ingalls, Northeastern University; Jericho, Vt.
Barbara E. James, Univ. of New Hampshire; Auburn, Me.
Thomas E. Judd, College of the Holy Cross; Ellsworth, Me.

Roy M. Kaplan, Boston College; Boston, Ma.
Anthony J. Kazlauskas, College of the Holy Cross; North Grafton, Ma.

Jeffrey M. King, M.I.T.; Allston, Ma.
Herbert J. Klein, Stanford University; Arlington Hgts., Ill.
Donald H. Lambert, University of R.I.; Colchester, Vt.
Karen A. Larsen, Univ. of New Mexico; Burlington, Vt.
Therese A. Lawrence, Manhattanville College; Burlington, Vt.

C. Fredrick Lord, Stonehill College; Avon, Ma.
Jeffrey M. Lovitz, Colby College; Waterville, Me.
David W. Lynch, Bowdoin College; Augusta, Me.
David T. Lyons, University of Rochester; Hanover, Ma.
Deborah L. Manjoney, Roanoke College; Trumbull, Conn.

Wendy J. Marshall, University of London; Surrey, England
Gary N. Matteson, Univ. of New Hampshire; North Bennington, Vt.
Edward F. McCarthy, Boston College; Winchester, Ma.
John W. McGill, Williams College; Burlington, Vt.
Wallace R. McGrew, Lehigh University; Cape Elizabeth, Me.
Donald W. Middleton, Wesleyan University; Foxboro, Ma.
Kenneth V. Misenis, M.I.T.; Wilmington, Ma.
James P. Murray, Fairfield University; Newton, Ma.
Howard A. Nadworny, Amherst College; Burlington, Vt.
David F. Perrone, College of the Holy Cross; Worcester, Ma.
Philip T. Peverada, Yale University; Portland, Me.
Paul V. Plourde, U. Maine at Orono; Orono, Me.
Michael D. Polikoff, University of Michigan; Burlington, Vt.

Paul F. Poulin, Bowdoin College; Waterville, Me.
Robert R. Revers, Bowdoin College; Dover, Ma.
Mark H. Rolerson, Dartmouth College; Lewiston, Me.
Richard H. Santaguida, U. Mass. at Amherst; Amherst, Ma.
John P. Scamman, Harvard University; Cape Elizabeth, Me.

Linda H. Schroth, Middlebury College; Middlebury, Vt.
Nicholas J. Sears, U.V.M.; Milton, Ma.
Robert D. Shaw, Williams College; Warwick, R.I.
Christopher F. Snow, Harvard College; West Scarborough, Me.

Brian R. Szetela, U.V.M.; Burlington, Vt.
John W. Thomas, U. Maine at Orono; Dover-Foxcroft, Me.
Brooke J. Thorne, Jackson College; Portland, Me.
Joseph D. Weissman, Cornell University; Williamsville, N.Y.

Nancy A. Works, Manhattanville College; Burlington, Vt.