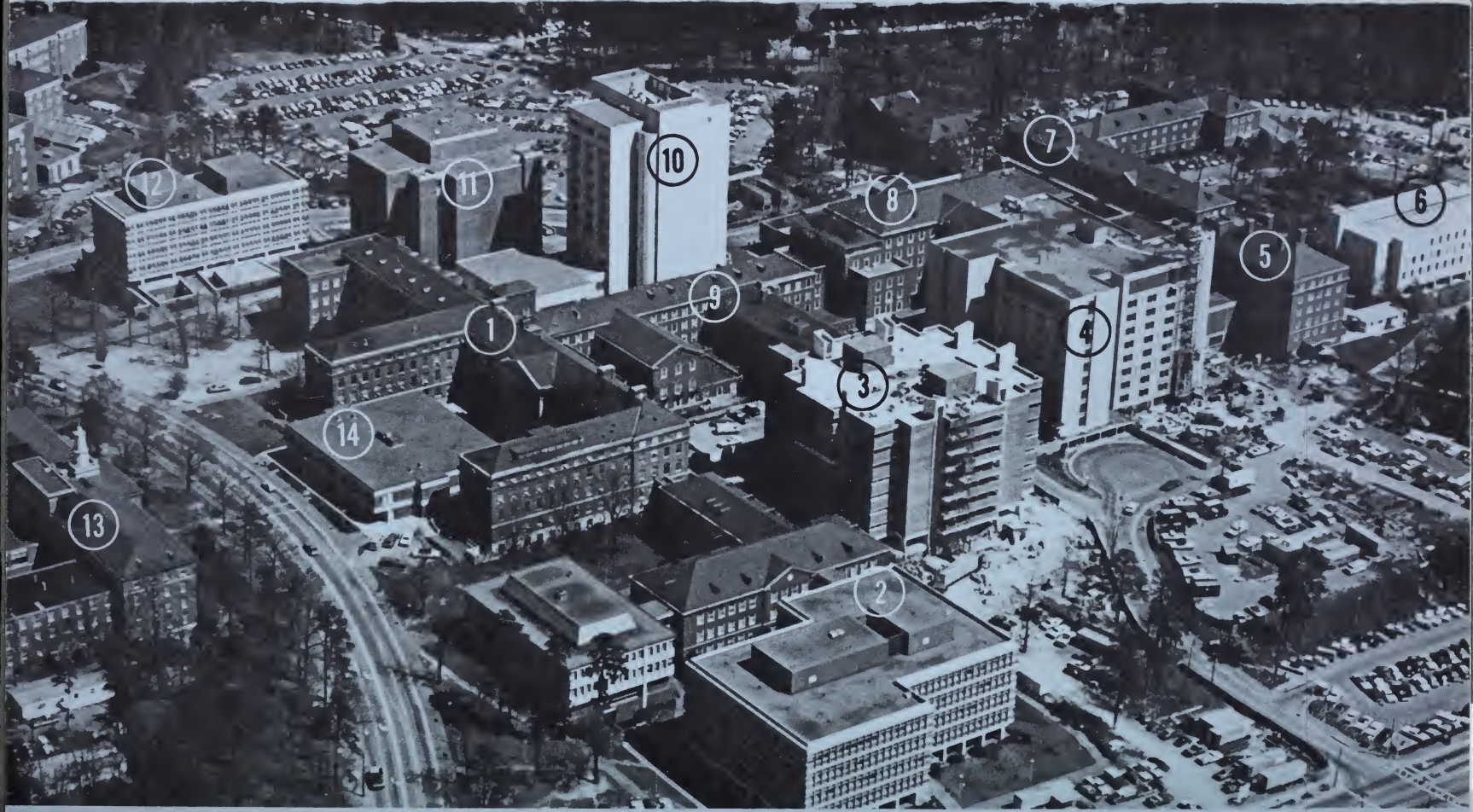
Record of The University of North Carolina At Chapel Hill

March 15, 1976

School of Medicine
1976-1977 Issue



AIR VIEW OF UNIVERSITY MEDICAL CENTER: (1) School of Medicine; (2) School of Dentistry; (3) Clinical Sciences Building; (4) J. Spencer Love Ambulatory Patient Care Facility and Bed Tower; (5) Psychiatric Center; (6) Child Development Center;

March 15, 1976 Number 833

RECORD OF THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

THE ONE HUNDRED AND EIGHTY-SECOND SESSION

CATALOGUE OF THE SCHOOL OF MEDICINE 1975-1976

ANNOUNCEMENTS FOR THE SESSION 1976-1977

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Published by THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
Issued 16 Times a Year as Follows: 1 in August,
2 in December, 3 in January, 2 in February, 3 in March,
3 in April, 1 in May, 1 in June
Second-Class Postage at Chapel Hill, N. C. 27514
Send All Undeliverable Copies and Change of Addresses to
Admissions Office, School of Medicine,
The University of North Carolina at Chapel Hill, Chapel Hill, N. C. 27514

THE UNIVERSITY OF NORTH CAROLINA

Sixteen Constituent Institutions

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., President
RAYMOND HOWARD DAWSON, B.A., M.A., Ph.D., Vice President–Academic Affairs
L. FELIX JOYNER, A.B., Vice President–Finance
JOHN L. SANDERS, A.B., J.D., Vice President–Planning
CLEON FRANKLYN THOMPSON, B.S., M.S., Acting Vice President–Student Services and Special Programs
GEORGE ELDRIDGE BAIR, B.A., M.A., Ph.D., Director of Educational Television
CHARLES RAY COBLE, JR., B.S., M.A., Ph.D., Associate Vice President–Planning
JOHN B. DAVIS, JR., B.S., M.A., Ed.D., Associate Vice President–Institutional Development and Special Programs
JAMES L. JENKINS, JR., A.B., Assistant to the President
EDGAR WALTON JONES, B.S., M.S., Ph.D., Associate Vice President–Research and Public Services
JOHN P. KENNEDY, JR., S.B., B.A., M.A., J.D., Secretary of the University
ARNOLD KIMSEY KING, A.B., A.M., Ph.D., Assistant to the President
ROSCOE D. McMILLAN, JR., B.S., Assistant to the President for Governmental Affairs
RICHARD H. ROBINSON, JR., A.B., LL.B., Assistant to the President
ROBERT W. WILLIAMS, A.B., M.A., Ph.D., Associate Vice President–Academic Affairs

The University of North Carolina was chartered in 1789 and opened its doors to students at its Chapel Hill campus in 1795. Throughout most of its history, it has been governed by a Board of Trustees chosen by the Legislature and presided over by the Governor. During the period 1917-1972, the Board consisted of one hundred elected members and a varying number of *ex-officio* members.

By an act of the General Assembly of 1931, without change of name, it was merged with The North Carolina College for Women at Greensboro and The North Carolina State College of Agriculture and Engineering at Raleigh to form a multicampus institution designated The University of North Carolina.

In 1963 the General Assembly changed the name of the campus at Chapel Hill to The University of North Carolina at Chapel Hill and that at Greensboro to The University of North Carolina at Greensboro and, in 1965, the name of the campus at Raleigh was changed to North Carolina State University at Raleigh.

Charlotte College was added as The University of North Carolina at Charlotte in 1965, and, in 1969, Asheville-Biltmore College and Wilmington College became The University of North Carolina at Asheville and The University of North Carolina at Wilmington respectively.

A revision of the North Carolina State Constitution adopted in November 1970 included the following: "The General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise. The General Assembly shall provide for

the selection of trustees of The University of North Carolina . . . ." In slightly different language, this provision had been in the Constitution since 1868.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the University as follows: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. This merger, which resulted in a statewide multicampus university of sixteen constituent institutions, became effective on July 1, 1972.

The constitutionally authorized Board of Trustees was designated the Board of Governors, and the number was reduced to thirty-two members elected by the General Assembly, with authority to choose their own chairman and other officers. The Board is "responsible for the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." Each constituent institution, however, has its own board of trustees of thirteen members, eight of whom are appointed by the Board of Governors, four by the Governor, and one of whom, the elected president of the student body, serves *ex officio.* The principal powers of each institutional board are exercised under a delegation from the Board of Governors.

Each institution has its own faculty and student body, and each is headed by a chancellor as its chief administrative officer. Unified general policy and appropriate allocation of function are effected by the Board of Governors and by the President with the assistance of other administrative officers of the University. The General Administration office is located in Chapel Hill.

The chancellors of the constituent institutions are responsible to the President as the chief administrative and executive officer of The University of North Carolina.

TABLE OF CONTENTS

Calendar of Events 7

Staff Rosters
- Administrative Officers 9
- Faculty Roster 11
- North Carolina Memorial Hospital Professional Staff 61
- Interns and Residents 74

A Policy Statement of the Faculty 83

General Information
- History 85
- Student Body—The Whitehead Medical Society 90
- Faculty 90
- Student-Faculty Advisory Council 90
- Associations 91
- Physical Facilities 92
- Clinical Facilities 93
- Libraries 94
- Medical Illustration 94
- Health and Recreation 95
- Veterans Affairs 95
- Housing 95

General University Regulations and Policies 96
- The Honor Council 96
- Policy on Equal Opportunity 96
- Automobile Regulations 96
- Residence Status for Tuition Payment 97
- Notice on Directory Information 100

Qualifications for Admission 102
- Procedure for Application 102
- College Preparation 103
- Admission to Advanced Standing 104

Expenses 104

Financial Aid 106
- Procedure for Application 107
- Scholarships 107
- Loans 113
- Employment 114

Evaluation of Student Performance 115
- The Examination System 115
- Grading System 116
- Promotion 117
- Requirements for Degrees in Medicine 117
- Academic Record 118

Awards 119
Honors and Awards for the Year 119
Descriptions of Awards 121
Research Grants and Fellowships 125

Program of Study for Medical Students
Curriculum 127
Course Descriptions 128
Schedules 135

Courses of Instruction
Department of Anatomy 139
Department of Anesthesiology 141
Department of Bacteriology and Immunology 142
Department of Biochemistry and Nutrition 144
Department of Dermatology 148
Department of Family Medicine 149
Department of Hospital Administration 151
Department of Medical Allied Health Professions 151
Department of Medicine 162
Department of Neurology 169
Department of Obstetrics and Gynecology 170
Department of Ophthalmology 171
Department of Pathology 172
Department of Pediatrics 176
Department of Pharmacology 180
Department of Physiology 183
Department of Psychiatry 186
Department of Radiology 190
Department of Surgery 192
Curriculum in Biomedical Engineering and Mathematics 196
Curriculum in Genetics 197
Curriculum in Neurobiology 201

Biological Sciences Research Center 205

Clinical Research Unit 206

Division of Education and Research in Community Medical Care 206

Division of Laboratory Animal Medicine 209

The Laboratories for Reproductive Biology 209

Office of Continuing Education 209

The Student Register 210

CALENDAR OF EVENTS[1]
1976-1977

First Year

Fall Semester

August 20-24	Registration and Orientation
August 25	First day of classes
September 6	Holiday, Labor Day
November 25-28	Thanksgiving vacation
December 17	Last day of classes

Spring Semester

January 10	First day of classes
March 7-13	Spring vacation
May 13	Last day of classes
May 14-25	Reading days and examinations

Second Year

August 23	Registration
August 25	First day of classes
September 6	Holiday, Labor Day
November 25-28	Thanksgiving vacation
December 18-January 9	Christmas vacation
March 7-13	Spring vacation
April 6-19	Reading and examination period

[1] This calendar is subject to change.

THIRD AND FOURTH YEARS

Note: Students in third and fourth years are scheduled on a rotational basis.

Clerkships

Medicine, Surgery & Life Support Skills

May 17-August 15
August 16-November 7
November 8-February 13
February 14-May 8

Ob-Gyn, Ped., Psyi.

May 17-June 27
July 5-August 15
August 16-September 26
September 27-November 7
November 8-December 21
January 3-February 13
February 14-March 27
March 28-May 8

Elective Periods

Summer Session:

1. May 24-June 20
2. June 21-July 18
3. July 19-August 15

Fall Semester:

4. August 16-September 12
5. September 13-October 24 (includes 2 wks. off for reading period & exams, Sept. 30-Oct. 3)
6. October 25-November 21
7. November 22-December 19

2 Weeks Vacation

Spring Semester:

8. January 3-January 20
9. January 31-February 27

1 Week Vacation

10. March 7-April 3
11. April 4-May 1

Commencement: May 15, 1977

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

NELSON FEREBEE TAYLOR, LL.B., Chancellor
SUSAN H. EHRINGHAUS, J.D., Assistant to the Chancellor
JOHN PARKHILL EVANS, Ph.D., Assistant to the Chancellor
SARAH VIRGINIA DUNLAP, B.S., Secretary to the University
C. HUGH HOLMAN, Ph.D., Special Assistant to the Chancellor
DONALD ARTHUR BOULTON, Ed.D., Dean of Student Affairs
DOUGLAS HUNT, LL.B., Vice Chancellor, Administration
CLAIBORNE STRIBLING JONES, Ph.D., Dean of the Graduate School and Vice Chancellor
WILLIAM FREDERICK LITTLE, Ph.D., Vice Chancellor, Development and Public Service
JOHN CHARLES MORROW III, Ph.D., Provost
HOMER CRANSTON RICE, M.E., Director of Athletics
CECIL GEORGE SHEPS, M.D., Vice Chancellor, Health Sciences

THE SCHOOL OF MEDICINE

CHRISTOPHER C. FORDHAM III, M.D., Dean
WALTER REECE BERRYHILL, A.B., M.D., Sc.D., Dean, Emeritus
DENNIS R. BARRY, B.S., M.B.A., Assistant Dean for Hospital Affairs
WILLIAM JAMES CROMARTIE, M.D., Associate Dean for Clinical Sciences
ROBERT G. CROUNSE, B.S., M.D., Associate Dean for Allied Health Programs
WILLIAM EWART EASTERLING, A.B., M.D., Associate Dean
MERREL D. FLAIR, B.S., M.S., Ph.D., Director, Office of Medical Studies
LUCIA W. HUDSON, Administrative Assistant
WILLIAM DAVIS HUFFINES, B.S., M.D., Associate Dean for Basic Sciences
BEVERLY C. LEAKE, Student Aid Officer
CONNIE McMANUS, Registrar
MARION PHILLIPS, B.A., Th.M., D.Mn., Assistant Dean
OSCAR LEMAY SAPP III, M.D., Associate Dean for Continuing Education and Alumni Affairs
JOHN MITCHELL SORROW, JR., B.S., M.D., Associate Dean for Student Affairs
CLARENCE N. STOVER, JR., B.S., M.S., Associate Dean for Administration
JAMES G. VAUGHAN, B.S., Business Officer
GLENN WILSON, A.B., M.A., Associate Dean for Community Health Services

ADMINISTRATIVE BOARD OF THE SCHOOL OF MEDICINE

ROGER E. BARTON, D.D.S., Professor of Dental Ecology and Associate Dean for Administration, School of Dentistry
DONALD A. BOULTON, B.A., B.D., Ed.D., Dean of Student Affairs, University of North Carolina at Chapel Hill
THOMAS E. CURTIS, M.D., Professor of Psychiatry
ROBERT G. CROUNSE, B.S., M.D., Professor of Medical Allied Health Professions and Dermatology
CHRISTOPHER C. FORDHAM III, M.D., (Chairman), Professor of Medicine and Dean of the School of Medicine
CLAUDE S. GEORGE, JR., B.S., M.S., Ph.D., Professor of Industrial Management and Associate Dean of the School of Business Administration
BERNARD GEORGE GREENBERG, B.S., Ph.D., Kenan Professor of Biostatistics and Dean of the School of Public Health
G. PHILIP MANIRE, B.S., M.S., Ph.D., Kenan Professor of Bacteriology
JOE WHEELER GRISHAM, B.A., M.D., Professor of Pathology
ROBERT L. NEY, M.D., Professor of Medicine
CLAUDE U. PAOLONI, B.S., Associate Professor of Pharmacy
EDWARD R. PERL, B.S., M.S., M.D., Professor of Physiology

FAYE D. PICKARD, B.S.N., R.N., M.S., Associate Professor of Nursing
KENNETH SUGIOKA, B.S., M.D., Professor of Anesthesiology

THE ADVISORY COMMITTEE OF THE MEDICAL FACULTY

CHRISTOPHER C. FORDHAM III, M.D., Chairman; Dean and Professor of Medicine
HARVEY E. ARCHER, B.A., M.H.A., Associate Professor of Hospital Administration
DENNIS R. BARRY, B.S., M.B.A., General Director, North Carolina Memorial Hospital
H. STANLEY BENNETT, A.B., M.D., D.Sc., Professor of Anatomy and Sarah Graham Kenan Professor of Biological and Medical Sciences
ROBERT G. CROUNSE, B.S., M.D., Professor of Medical Allied Health Professions
THOMAS E. CURTIS, M.D., Professor of Psychiatry
FLOYD W. DENNY, JR., B.S., M.D., Alumni Distinguished Professor of Pediatrics
THOMAS WOHLSEN FARMER, A.B., M.A., M.D., Sarah Graham Kenan Professor of Neurology
JOE WHEELER GRISHAM, A.B., M.D., Professor of Pathology
CHARLES H. HENDRICKS, A.B., M.D., Professor of Obstetrics and Gynecology
JOSEPH LOGAN IRVIN, B.S., Ph.D., Kenan Professor of Biochemistry and Nutrition
SAMUEL DACE McPHERSON, JR., A.B., M.D., Clinical Professor of Ophthalmology
GEORGE PHILIP MANIRE, B.S., M.S., Ph.D., Kenan Professor of Bacteriology
PAUL LEWIS MUNSON, B.A., M.A., Ph.D., Professor of Pharmacology
ROBERT L. NEY, M.D., Professor of Medicine
EDWARD ROY PERL, B.S., M.D., M.S., Professor of Physiology
JAMES H. SCATLIFF, B.S., M.D., Professor of Radiology
EDWARD J. SHAHADY, B.S., M.D., Professor of Family Medicine
[1] ROBERT SMITH, B.A., M.D., Professor of Family Medicine
KENNETH SUGIOKA, B.S., M.D., Professor of Anesthesiology
COLIN GORDON THOMAS, JR., B.S., M.D., Professor of Surgery
CLAYTON E. WHEELER, JR., M.D., Professor of Dermatology
WILLIAM JAMES CROMARTIE, M.D., Associate Dean for Clinical Sciences, *ex officio*
WILLIAM E. EASTERLING, A.B., M.D., Associate Dean, Chief of Staff, North Carolina Memorial Hospital, *ex officio*
MERRELL D. FLAIR, B.S., M.S., Ph.D., Director, Office of Medical Studies, *ex officio*
WILLIAM DAVIS HUFFINES, B.S., M.D., Associate Dean for Basic Sciences, *ex officio*
MORRIS A. LIPTON, Ph.D., M.D., Director, Biological Sciences Research Center, Child Development Center, *ex officio*
WILLIAM W. McLENDON, B.A., M.D., Director, Department of Hospital Laboratories, North Carolina Memorial Hospital, *ex officio*
JOSEPH S. PAGANO, A.B., M.D., Director, Cancer Center Program, *ex officio*
MARION PHILLIPS, A.B., Th.M., D.Mn., Assistant Dean, *ex officio*
OSCAR L. SAPP III, M.D., Associate Dean for Continuing Education and Alumni Affairs, *ex officio*
JOHN MITCHELL SORROW, JR., B.S., M.D., Associate Dean of Student Affairs, *ex officio*
CLARENCE NATHAN STOVER, JR., B.S., M.S., Associate Dean for Administration, *ex officio*
GLENN WILSON, A.B., M.A., Associate Dean for Community Health Services, *ex officio*
CARO MacNEILL PUGH, (Secretary)

[1] Resigned July 1, 1975.

COMMITTEE ON ADMISSIONS

WILLIAM E. BAKEWELL, JR., *Chairman;* WILLIAM R. STRAUGHN, JR., *Director of Admissions;* HERBERT A. COOPER, JANET J. FISCHER, HENRY T. FRIERSON, WALTER HOLLANDER, JR., J. KEMPTON JONES, ERNEST N. KRAYBILL, EDITH K. MacRAE, PIERRE MORELL, HUBERT C. PATTERSON, JR., MARION PHILLIPS, JAMES E. SOMERS. *Consultant:* JOHN M. SORROW, JR. *Student Representatives:* ROBERT BERGER, DEBORAH BOYD, JANE BURNS, RONALD GERBE, SETH HETHERINGTON, GEORGE JOHNSON, MARK MONSON, DAVID MOORE, PETER MORRIS, CASSANDRA NEWKIRK, MIKE PARKER, CHARLES POPE, THOMAS POPE, CRAIG PRICE, JON REGIS, DAN SHAPIRO, NANCY TEAFF, ROBERT TOMSICK, RALPH WALL.

EDUCATIONAL POLICY COMMITTEE

WILLIAM D. HUFFINES, *Chairman;* HARVEY E. ARCHER, WILLIAM E. BAKEWELL, JR., H. STANLEY BENNETT, WILLIAM J. CROMARTIE, ROBERT G. CROUNSE, FREDERICK G. DALLDORF, GERALD W. FERNALD, MERREL D. FLAIR, CHRISTOPHER C. FORDHAM III, TREVOR HUGHES, J. LOGAN IRVIN, GEORGE JOHNSON, G. PHILIP MANIRE, SAMUEL D. McPHERSON, JR., PAUL L. MUNSON, EDWARD R. PERL, JAMES H. SCATLIFF, DAVID D. SCHMIDT, JOHN M. SORROW, LUTHER M. TALBERT, RICHARD I. WALKER, CLAYTON E. WHEELER, JR. *Student Representatives:* BOB TOMSICK, WILLIAM FULKERSON, JR., BETTY JEAN HALL, NATALIE SANDERS.

COMMITTEE ON STUDENT AID

JOHN MITCHELL SORROW, JR., *Chairman;* MARION PHILLIPS, WILLIAM D. HUFFINES.

THE FACULTY

HARVEY ADAMS (1963), Clinical Instructor in Obstetrics and Gynecology
A.B., 1951, M.D., 1955 (North Carolina)

JAMES U. ADELMAN (1975), Clinical Assistant Professor of Medicine
B.A., 1963 (Grinnell); M.D., 1967 (Northwestern)

JULIAN S. ALBERGOTTI (1973), Clinical Assistant Professor of Family Medicine
B.S., 1952, M.D., 1955 (North Carolina)

GENE H. ALBRECHT (1975), Instructor in Anatomy
B.S., 1969 (Rollins); Ph.D., 1975 (Chicago)

JAMES F. ALEXANDER (1970), Clinical Associate Professor of Medicine
B.Sc., 1959 (Davidson); M.D., 1963 (McGill)

JEFFREY C. ALLEN (1975), Instructor in Pediatrics
B.A., 1965 (Oberlin); M.D., 1969 (Harvard)

JOHN W. ALLGOOD (1968), Clinical Assistant Professor of Medicine
B.S., 1935, M.D., 1938 (Emory University)

ROBERT JEROME ANDELMAN (1971), Clinical Instructor in Medicine
B.A., 1966 (Harvard); M.D., 1970 (New York University School of Medicine)

CARL ELMORE ANDERSON (1940-1942; 1950), Professor of Biochemistry and Nutrition
B.S., 1935 (Connecticut); Ph.D., 1943 (North Carolina)

JAMES W. ANDERSON (1969), Instructor in Hospital Administration
B.B.A., 1951 (University of Miami); C.P.A., 1955 (North Carolina)

JOHN J. B. ANDERSON (1971), Assistant Professor of Surgery and Associate Professor of Nutrition, School of Public Health
B.A., 1956 (Williams); M.A.T., 1958 (Harvard); M.A., 1962 (Boston); Ph.D., 1966 (Cornell)

NADIA MALOUF ANDERSON (1970), Assistant Professor of Pathology
B.Sc., 1957, M.D., 1963 (American University of Beirut, Lebanon)

PHILLIP A. ANDERSON (1975), Assistant Professor of Family Medicine
B.S., 1970, M.D., 1972 (Michigan)

JEFFREY J. ANDRESEN (1970), Assistant Professor of Psychiatry
B.A., 1961 (Iowa); M.D., 1964 (Pennsylvania)

[2]DAVID W. ANGE (1974), Assistant Professor of Radiology
B.S., 1964, M.D., 1968 (North Carolina)

ELBERT DWIGHT APPLE (1969), Clinical Associate Professor of Radiology
B.S., 1926 (North Carolina); M.D., 1929 (Washington University)

HARVEY E. ARCHER (1962), Associate Professor of Hospital Administration
B.A., 1939 (George Washington); M.H.A., 1958 (Baylor)

WILLIAM J. ARENDSHORST (1974), Assistant Professor of Physiology
B.A., 1966 (DePauw); Ph.D., 1970 (Indiana)

ANNE PRESTON ASKEW (1963), Clinical Instructor in Pediatrics
A.B., 1952 (North Carolina at Greensboro); M.D., 1956 (Duke)

FREDERICK P. AVIS (1974), Assistant Professor of Surgery and Bacteriology
B.A., 1964 (Brown); M.D., 1969 (North Carolina)

ARTHUR S. AYLSWORTH (1973), Assistant Professor of Pediatrics
B.E.P., 1963 (Cornell); M.D., 1967 (Pennsylvania)

STEVEN L. BACHENHEIMER (1975), Assistant Professor of Bacteriology and Immunology
B.S., 1967 (Illinois); Ph.D., 1972 (Chicago)

HAYNES W. BAIRD (1973), Adjunct Instructor in Pathology
B.A., 1965, M.D., 1969 (North Carolina)

JOHN W. BAKER (1975), Clinical Assistant Professor of Medicine
B.S., 1967 (George Washington); M.D., 1971 (Virginia)

WILLIAM E. BAKEWELL, JR., (1965), Professor of Psychiatry
B.A., 1943 (Iowa State College); M.A., 1944 (Iowa State University); M.D., C.M., 1949 (McGill University)

BRUCE A. BALDWIN (1971), Assistant Professor of Psychology in Psychiatry
B.S., 1966 (Pennsylvania State University); M.R.C., 1967 (Florida); Ph.D., 1970 (Arizona State University)

BRENDA COMBS BALL (1975), Lecturer in Psychiatry
B.A., 1960, M.Ed., 1961, Ph.D., 1968 (North Carolina at Chapel Hill)

TIMIR BANERJEE (1973), Assistant Professor of Surgery and Oral Surgery
S.S.C., 1959 (Scindia School); I.S.C., 1961 (Scottish Church College); M.B.B.S., 1966 (NRS Medical College)

WILLIAM J. BANFIELD (1975), Clinical Instructor in Medicine
B.S., 1963 (College of the Holy Cross); M.D., 1967 (Maryland)

SHERWOOD W. BAREFOOT (1968), Clinical Associate Professor of Dermatology
B.S., 1936 (North Carolina); M.D., 1938 (Duke)

GRAHAM BARNES (1974), Lecturer in Psychiatry
B.A., 1959 (Roanoke Bible College); M.S., 1964 (Abilene Christian); S.T.B., 1967 (Harvard Divinity School)

M. SALLIE BARNES (1973), Clinical Instructor in Physical Therapy
R.N., 1947 (Rex Hospital); P.T. Cert., 1958 (Duke)

[3]THOMAS BUCHANAN BARNETT (1952), Professor of Medicine
A.B., 1944 (Tennessee); M.D., 1949 (Rochester)

---

[2]Resigned May 12, 1975.
[3]Kenan leave of absence, August 1, 1975-August 1, 1976.

[4]EMILY STACY BARROW (1962), Associate Professor of Pathology
A.B., 1950 (Meredith College); M.A., 1952, Ph.D., 1963 (North Carolina)
DENNIS ROBERT BARRY (1972), Associate Professor of Hospital Administration
B.S., 1961 (Illinois); M.B.A., 1964 (Chicago)
CAROLE BARTHOLOMEW (1973), Clinical Instructor in Physical Therapy
B.S., 1970 (North Carolina at Chapel Hill)
JOEL B. BASEMAN (1971), Assistant Professor of Bacteriology
B.S., 1963 (Tufts); M.S., 1965, Ph.D., 1968 (Massachusetts)
MARIO C. BATTIGELLI (1965), Professor of Medicine and Associate Professor of Family Medicine, and Associate Professor of Environmental Science in the School of Public Health
M.D., 1951 (University of Florence, Italy); M.P.H., 1957 (University of Pittsburgh)
EMMETT EARL BAUGHMAN (1958), Clinical Professor of Psychology in Psychiatry
B.S., 1946, Ph.D., 1951 (Chicago)
RICHARD SCOTT BEAR (1969), Professor of Anatomy
S.B., 1930 (Princeton); Ph.D., 1933 (Berkeley)
[5]FLORENCE M. BEARDEN (1968), Assistant Professor of Family Medicine
B.A., 1948 (North Carolina); M.A., 1968 (University of Southern California)
LEE BEATY (1973), Clinical Instructor in Physical Therapy
B.S., 1957 (Slippery Rock State College); Cert. in Physical Therapy, 1961 (Pittsburgh)
ALBERT A. BECHTOLDT, JR. (1966), Assistant Professor of Anesthesiology
A.B., 1957 (Princeton); M.D., 1961 (Yale)
LENORE BALSAM BEHAR (1965), Assistant Professor of Psychology in Psychiatry
B.A., 1959, Ph.D., 1963 (Duke)
FRED E. BELL (1958), Associate Professor of Biochemistry and Nutrition
A.B., 1950, M.A., 1953, Ph.D., 1957 (Emory)
WILLIAM EDWARD BELLAMY, JR. (1960), Clinical Associate Professor of Medicine
B.S., 1945 (Wake Forest); M.D., 1947 (Bowman Gray)
[6]ELSA BELLO (1974), Visiting Assistant Professor of Physiology
B.A., 1957, M.D., 1964 (University of Chile, Santiago)
EDWARD PERRY BENBOW, JR. (1954), Clinical Associate Professor of Pediatrics
A.B., 1937 (North Carolina); M.D., 1941 (Duke)
[7]JOYCE A. BENJAMIN (1973), Assistant Professor of Biochemistry and Nutrition
B.A., 1963 (Albion College); Ph.D., 1967 (Michigan)
H. STANLEY BENNETT (1969), Professor of Anatomy and Sarah Graham Kenan Professor of Biological and Medical Sciences
A.B., 1932 (Oberlin College); M.D., 1936 (Harvard); D.Sc., 1962 (Monmouth)
WILLIAM T. BENNETT (1972), Clinical Assistant Professor of Medicine
B.S., 1961 (Alabama); M.D., 1965 (Tulane)
WALTER RUSSELL BENSON (1956), Professor of Pathology
M.D., 1944 (Duke)
[8]WILLARD K. BENTZ (1966), Associate Professor of Sociology in Psychiatry
B.A., 1959, M.S., 1962 (University of Florida); Ph.D., 1965 (Florida State University)
MICHAEL KALEN BERKUT (1947), Professor of Biochemistry and Nutrition and Associate Professor of Physiology
B.S., 1941 (North Carolina State); Ph.D., 1953 (North Carolina)

---

[4]Leave of absence, April 1, 1975-October 1, 1975.
[5]Resigned September 22, 1975.
[6]Resigned September 14, 1975.
[7]Resigned July 15, 1975.
[8]Resigned August 1, 1975.

JERRY C. BERNSTEIN (1974), Clinical Assistant Professor of Pediatrics
B.A., 1966 (Duke); M.D., 1970 (North Carolina)
ROY VENDEN BERRY (1968), Clinical Assistant Professor of Pediatrics
M.B., B.S., 1954 (University of London); M.P.H., 1965 (North Carolina)
JUDITH L. BERRYHILL (1972), Clinical Instructor in Psychiatry
A.B., 1964 (Western Kentucky); Ph.D., 1971 (Duke)
WALTER REECE BERRYHILL (1933), Sarah Graham Kenan Professor of Medicine, Emeritus
A.B., 1921 (North Carolina); M.D., 1927 (Harvard); Sc.D., 1956 (Davidson)
[9]JUDITH C. BESWICK (1968), Lecturer in Physical Therapy
B.S., 1963, Cert. in P.T., 1963 (North Carolina)
CHARLES S. BETTS (1974), Clinical Assistant Professor of Medicine
B.S., 1963 (William and Mary); M.D., 1967 (Virginia)
ABNER G. BEVIN (1967), Associate Professor of Surgery (Plastic)
B.A., 1956 (Wesleyan University); M.D., 1960 (Yale)
WILLIAM P. BIGGERS (1967), Associate Professor of Surgery (Otolaryngology)
B.S., 1959 (Davidson); M.D., 1963 (North Carolina)
ROBERT H. BILBRO (1972), Clinical Assistant Professor of Medicine and Family Medicine
A.B., 1962, M.D., 1966 (North Carolina)
EDWARD H. BISHOP (1971), Professor of Obstetrics and Gynecology
B.A., 1934 (Dartmouth); M.D., 1937 (Pennsylvania)
JOHN M. BISHOP (1969), Clinical Instructor in Obstetrics and Gynecology
B.A., 1953 (Richmond); M.D., 1957 (Medical College of Virginia)
ESTER BIVENS (1973), Clinical Lecturer in Physical Therapy
B.A., 1948 (Spelman); Cert. in P.T., 1952 (Pennsylvania)
JAMES HAMPTON BLACK (1970), Clinical Associate Professor of Medicine
B.S., 1959 (Wake Forest); M.D., 1963 (Bowman Gray)
GEORGE WALKER BLAIR, JR. (1953), Clinical Associate Professor of Medicine
B.S., 1944 (North Carolina); M.D., 1947 (Pennsylvania)
GERALD W. BLAKE (1974), Assistant Professor of Medicine
B.S., 1963, M.D., 1967 (North Carolina)
PHILLIP MARK BLATT (1974), Assistant Professor of Medicine and Pathology
B.A., 1965 (Pennsylvania); M.D., 1969 (Washington University, St. Louis)
MICHAEL BLEYMAN (1970), Assistant Professor of Zoology and Biochemistry and Nutrition
A.B., 1959 (Brooklyn College); M.A., 1964 (Indiana); Ph.D., 1968 (Illinois)
WILLIAM BREVARD BLYTHE (1960), Professor of Medicine
B.A., 1948 (North Carolina); M.D., 1953 (Washington University)
WILLIAM FREDERICK BOBZIEN (1973), Assistant Professor of Medicine and Family Medicine
B.S., 1965 (Holy Cross); M.D., 1969 (Georgetown)
PRISCILLA DAY BOEKELHEIDE (1973), Assistant Professor of Psychiatry
B.A., B.S., 1943, B.M., 1945, M.D., 1949 (Minnesota)
JORGEN J. G. BOIVIE (1971), Adjunct Assistant Professor of Physiology
Medicine kandidat, 1961, Medicine doctor, 1970, Docent of Anatomy, 1970 (Uppsala University, Sweden)
RUTH BOKUN (1972), Adjunct Instructor in Hospital Administration
R.N., 1959 (St. Francis Hospital); B.A., 1965 (Diocesan College); M.A., 1972 (St. Louis)
[10]JOSEPH J. BONANNO (1973), Assistant Professor of Radiology
B.S., 1961, M.D., 1965 (Louisiana State University)
MERLE D. BONNER (1968), Clinical Associate Professor of Medicine
M.D., 1930 (North Carolina and Maryland)

---

[9]Deceased May 25, 1975.
[10]Resigned December 31, 1975.

JOHN IVERSON BOSWELL, JR. (1964), Associate Professor of Psychiatry
B.S., 1949 (North Carolina State); M.D., 1957 (Virginia)
KENNETH F. BOTT (1971), Associate Professor of Bacteriology
B.S., 1958 (St. Lawrence); M.S., 1960, Ph.D., 1963 (Syracuse)
WILLIAM H. BOWERS (1973), Assistant Professor of Surgery
B.S., 1960 (The Citadel); M.S., 1962, M.D., 1966 (North Carolina)
LARRY W. BOYLES (1974), Instructor in Neurology and Medicine
A.B., 1966, M.D., 1970 (North Carolina)
PAUL W. BOYLES (1973), Clinical Assistant Professor of Medicine
B.A., 1947 (Duke); M.S., 1949 (North Carolina); M.D., 1953 (New York University)
EUGENE M. BOZYMSKI (1966), Associate Professor of Medicine
M.D., 1960 (Marquette)
PRESTON H. BRADSHAW (1973), Clinical Assistant Professor of Surgery
B.S., 1956 (Wake Forest); M.D., 1960 (Duke)
GLENDA J. BRADY (1973), Clinical Assistant Professor of Physical Therapy
B.S.P.E., 1957 (North Carolina at Greensboro); Cert. in P.T., 1958 (Pennsylvania)
GUY H. BRANAMAN (1969), Clinical Instructor in Obstetrics and Gynecology
A.B., 1935 (Washington and Lee); M.D., 1939 (Virginia)
HARRY ROBERT BRASHEAR, JR. (1963), Professor of Surgery (Orthopedics)
A.B., 1943, M.D., 1945 (California)
DORIS B. BRAXTON (1963), Clinical Instructor in Pediatrics
B.A., 1953 (Elon College); M.D., 1959 (North Carolina)
CHARLES ANTHONY BREAM (1952), Professor of Radiology
B.S., 1936 (Grove City College); M.D., 1940 (Temple)
GEORGE R. BREESE (1968), Associate Professor of Psychiatry and Associate Professor of Pharmacology
B.S., 1959, M.S., 1961 (Butler); Ph.D., 1965 (University of Tennessee)
WILLIAM EDWARD BRENNER (1969), Associate Professor of Obstetrics and Gynecology
A.B., 1958 (Adelbert College of Case WRU); M.D., 1962 (Case Western Reserve)
JOHN DAVID BRIDGERS (1962), Clinical Assistant Professor of Pediatrics
A.B., 1940 (East Carolina College); M.D., 1950 (Duke)
ROBERT A. BRIGGAMAN (1967), Professor of Dermatology and Medicine
B.S., 1956 (Trinity College); M.D., 1960 (New York University)
KENNETH MERLE BRINKHOUS (1946), Alumni Distinguished Professor of Pathology
B.A., 1929, M.D., 1932 (Iowa); D.Sc., (hon.) 1967 (Chicago)
BRUCE R. BRODIE (1973), Instructor in Medicine
B.S., 1965 (Purdue); M.D., 1970 (Washington University)
PHILLIP A. BROMBERG (1975), Professor of Medicine
B.S., 1949 (Queens College, N.Y.); M.D., 1953 (Harvard)
EDWARD F. BROOKS (1973), Instructor in Family Medicine
B.A., 1965 (Bates); M.B.A., 1967 (Cornell)
JAMES T. BROOKS (1968), Clinical Assistant Professor of Medicine
A.B., 1939 (North Carolina); M.D., 1943 (Pennsylvania)
WILLIAM LESTER BROOKS (1969), Clinical Associate Professor of Medicine
A.B., 1936 (Princeton); M.D., 1947 (Duke)
JAMES P. BROWDER (1975), Assistant Professor of Surgery
M.A., 1966 (Fordham); M.D., 1970 (North Carolina at Chapel Hill)
DAVID R. BROWN (1970), Associate Professor of Anesthesiology and Clinical Assistant Professor of Medicine
B.S., 1948 (W. Va. Wesleyan); B.S., 1950 (W. Va. University); M.D., 1952 (Medical College of Virginia)
DAVID W. BROWN (1973), Clinical Assistant Professor of Medicine
B.A., 1963 (Carleton College); M.D., 1967 (Rochester)

ROBERT CALVIN BROWN (1969), Adjunct Professor of Pathology
A.B., 1955 (Erskine); M.D., 1959 (North Carolina)
WALLACE D. BROWN (1973), Clinical Assistant Professor of Pediatrics
B.S., 1962 (St. Lawrence); M.D., 1968 (Rochester)
PAUL E. BRUBAKER II (1971), Lecturer in Biochemistry
B.A., 1959 (St. Vincent); M.S., 1965, Ph.D., 1968 (Catholic University)
JAMES C. BRUCE (1968), Clinical Associate Professor of Medicine
M.D., 1951 (George Washington University)
HENRY DAVID BRUTON (1966), Clinical Assistant Professor of Pediatrics
A.B., 1957, M.D., 1961 (North Carolina)
EDWIN LANCASTER BRYAN (1968), Clinical Assistant Professor of Medicine
A.B., 1957 (Princeton); M.D., 1961 (Pennsylvania)
JAMES ALEXANDER BRYAN II (1965), Professor of Medicine and Associate Professor of Family Medicine
B.S., 1953 (Davidson); M.D., 1957 (Pennsylvania)
JOHN H. BRYAN (1974), Assistant Professor of Pediatrics
B.A., 1965 , M.D., 1969 (North Carolina)
[11]PHILIP BUCHANAN (1970), Assistant Professor of Pediatrics
B.S., 1966 (Western Carolina College); M.S., 1968, Ph.D., 1970 (N.C. State)
JOSEPH A. BUCKWALTER (1970), Professor of Surgery
B.A., 1941 (Colgate); M.D., 1944 (Pennsylvania)
RODERICK M. BUIE, JR. (1968), Clinical Assistant Professor of Medicine
B.S., 1941 (Wake Forest); M.D., 1944 (Bowman Gray)
WILLIAM R. BULLOCK (1972), Clinical Assistant Professor of Medicine
B.A., 1960 (University of the South); M.D., 1968 (Tennessee)
JOHN REED BUMGARDNER (1968), Clinical Associate Professor of Medicine
B.S., 1932 (North Carolina State); M.D., 1939 (Medical College of Virginia)
PAUL LESLIE BUNCE (1952), Professor of Surgery
A.B., 1938 (Oberlin); M.D., 1942 (Chicago)
JAMES J. BURCHALL (1973), Adjunct Associate Professor of Bacteriology
B.S., 1954 (St. John's University); M.A., 1959 (Brooklyn College); Ph.D., 1963 (Illinois)
HUGH J. BURFORD (1971), Associate Professor of Pharmacology and Pharmacy
B.S., 1954 (Millsaps); M.S., 1956 (Mississippi); Ph.D., 1962 (Kansas)
ROBERT F. BURGIN (1975), Assistant Professor of Hospital Administration
B.A., 1962 (Miami, Ohio); M.H.A., 1964 (Michigan)
JOHN E. BURNETT, JR. (1975), Clinical Assistant Professor of Obstetrics and Gynecology
B.S., 1940 (Michigan State); M.D., 1943 (Michigan)
CHARLES S. BURNS (1974), Lecturer in Medical Allied Health Professions
Cert. P.T., 1965 (North Carolina)
PAUL L. BURROUGHS, JR. (1972), Clinical Assistant Professor of Surgery
A.B., 1962, M.D., 1966 (North Carolina)
JAMES H. BURRUS (1974), Clinical Assistant Professor of Obstetrics-Gynecology
B.S., 1954, M.D., 1957 (North Carolina)
THOMAS CULLOM BUTLER (1950), Professor of Pharmacology
A.B., 1930, M.D., 1934 (Vanderbilt)
MARY W. CALLAWAY (1971), Instructor of Clinical Social Work in Family Medicine and Psychiatry
B.A., 1944 (Winthrop); M.A., 1946 (Scarritt); M.S.W., 1956 (Western Reserve)
THOMAS FRANCIS CAMP (1971), Clinical Assistant Professor of Medicine
M.D., 1962 (Emory)
LORIN SCOTT CAMPBELL (1965), Assistant Professor of Hospital Administration
B.S., 1960 (North Carolina); M.H.A., 1962 (Medical College of Virginia)

---

[11]Leave of absence, September 14, 1974-October 12, 1976.

SUZANNE K. CAMPBELL (1972), Assistant Professor of Physical Therapy
B.S., 1965, M.S., 1968 (Wisconsin)

MICHAEL CAPLOW (1970), Professor of Biochemistry and Nutrition and Professor of Oral Biology, School of Dentistry
D.D.S., 1959 (New York University); Ph.D., 1963 (Brandeis)

JOSEPH J. CAPOWSKI (1975), Lecturer in Physiology
B.S.E.E., 1966 (Bucknell); M.S., 1971 (North Carolina at Chapel Hill)

KENNETH D. CAREY (1974), Assistant Professor of Animal Laboratory Medicine
B.S. (L.A.S.) 1966, B.S. (Vet. Sc.), 1968, D.V.M., 1970 (Illinois); Ph.D., 1974 (Missouri)

MARGARET F. CARLIN (1973), Clinical Instructor, Basic Sciences Research Center
B.A., 1961 (Cornell); M.S., 1964 (Pittsburgh)

DENNIS D. CARMICHAEL (1973), Clinical Assistant Professor of Psychiatry
M.B.Ch.B., 1950 (Aberdeen University, Scotland)

CHARLES N. CARNEY (1966; 1970), Assistant Professor of Pathology
A.B., 1959 (Birmingham-Southern College); M.D., 1963 (Medical College of Alabama)

IVOR CARO (1975), Instructor in Dermatology and Family Medicine
M.D., 1969 (University of the Whitwatersrand Medical School, Johannesburg, South Africa)

CHARLES W. CARTER, JR. (1974), Assistant Professor of Biochemistry and Nutrition and Anatomy
B.A., 1967 (Yale); M.D., 1968, Ph.D., 1972 (California)

BANKS RALEIGH CATES, JR. (1969), Clinical Associate Professor of Medicine
M.D., 1944 (Duke)

ALLEN E. CATO (1975), Clinical Assistant Professor of Pediatrics
B.S., 1961, Ph.D., 1967, M.D., 1969 (Duke)

VERNE STRUDWICK CAVINESS (1952), Clinical Professor of Medicine, Emeritus
A.B., 1915 (Trinity College); M.D., 1921 (Jefferson Medical College)

CHI BOM CHAE (1967), Assistant Professor of Biochemistry and Nutrition
B.S., 1963 (Seoul National University, Korea); Ph.D., 1967 (North Carolina)

HARRIE ROGERS CHAMBERLIN (1953), Professor of Pediatrics
A.B., 1942, M.D., 1945 (Harvard)

JOHN RANDOLPH CHAMBLISS (1956), Clinical Professor of Medicine
B.S., 1942 (North Carolina); M.D., 1944 (Harvard)

JOE T. CHANDLER (1973), Clinical Assistant Professor of Medicine
B.S., 1959 (Furman); M.D., 1963 (Medical College of South Carolina)

STEPHEN G. CHANEY (1972), Assistant Professor of Biochemistry and Nutrition
B.S., 1966 (Duke); Ph.D., 1970 (California-Los Angeles)

JOHN D. CHARLTON (1968), Clinical Assistant Professor of Medicine
B.A., 1937 (McMaster University, Canada); M.D., 1942 (University of Western Ontario, Canada)

YOUNG W. CHO (1973), Clinical Associate Professor of Pharmacology
M.D., 1956 (Seoul National University College of Medicine); M.S., 1962 (Emory); Ph.D., 1972 (Nihon University, Tokyo)

MEADE R. CHRISTIAN, JR. (1971), Clinical Assistant Professor of Pediatrics
A.B., 1963 (Washington and Lee); M.D., 1967 (Western Reserve)

[11a]HANSON Y. CHUANG (1973), Assistant Professor of Pathology and Biochemistry and Nutrition
B.S., 1958 (National Taiwan University); Ph.D., 1968 (North Carolina)

DAVID SANFORD CITRON (1967), Clinical Professor of Medicine
A.B., 1941 (North Carolina); M.D., 1944 (Washington University)

[11a]Resigned August 31, 1975.

DANIEL E. CLARK (1968; 1970), Clinical Assistant Professor of Radiology
A.B., 1957, M.D., 1961 (North Carolina)

RICHARD LEE CLARK (1973), Associate Professor of Radiology
B.A., 1962 (Oberlin); M.D., 1966 (Johns Hopkins)

MARY GILL CLARKE (1956), Professor of Psychology and Professor of Psychology in Psychiatry
A.B., 1940 (North Carolina at Greensboro); M.A., 1943 (Minnesota); Ph.D., 1954 (Duke)

WILLIAM M. CLARKE (1966), Clinical Assistant Professor of Pediatrics
B.A., 1954, M.A., 1957 (Duke); M.D., 1961 (North Carolina)

JACK L. CLAUSEN (1971), Clinical Instructor in Medicine
B.S., 1961 (Stanford); M.D., 1967 (Duke)

THORNTON R. CLEEK (1973), Clinical Assistant Professor of Family Medicine
B.A., 1939 (Washington and Lee); M.D., 1950 (Medical College of Virginia)

JOHN WILLIAM CLINE (1967), Clinical Assistant Professor of Ophthalmology
B.S., 1954 (Emory and Henry College); M.D., 1958 (Medical College of Virginia)

WALLACE A. CLYDE, JR. (1961), Professor of Pediatrics and Bacteriology
B.A., 1951, M.D., 1954 (Vanderbilt)

JOHN B. CODINGTON (1969), Clinical Assistant Professor of Surgery
B.S., 1949 (Davidson); M.D., 1953 (Maryland)

ARCHIE T. COFFEE, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1939, M.D., 1944 (Emory)

JAMES C. COFFEY, JR. (1972), Assistant Professor of Pediatrics and Dental Research
B.A., 1963 (Catawba); M.S.P.H., 1966, Ph.D., 1970 (North Carolina at Chapel Hill)

DAVID L. COFFIN (1975), Adjunct Professor of Pathology
V.M.D., 1938 (Pennsylvania)

BETTY EDENFIELD COGSWELL (1960), Assistant Professor of Family Medicine (Rehabilitation)
A.B., 1952 (Goucher); M.S., 1958 (North Carolina State); Ph.D., 1965 (North Carolina)

[12]ANDREW T. COLE (1972), Assistant Professor of Surgery
A.B., 1963, B.S., 1964 (Dartmouth); M.D., 1966 (McGill)

ELWOOD BROGDEN COLEY (1955), Clinical Assistant Professor of Pediatrics
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)

SILAS B. COLEY, JR. (1969), Assistant Professor of Psychiatry
B.S., 1956 (North Carolina); B.A., 1961 (University of Miami); M.D., 1965 (North Carolina)

ROMULO ERNESTE COLINDRES (1972), Assistant Professor of Medicine
M.D., 1966 (University of El Salvador)

ALBERT M. COLLIER (1970), Assistant Professor of Pediatrics
B.S., 1959, M.D., 1963 (University of Miami)

WILLIAM G. CONLEY III (1966), Clinical Assistant Professor of Pediatrics
A.B., 1956, B.S., 1958 (West Virginia); M.D., 1960 (Medical College of Virginia)

WILLIAM HOWARD CONSIDINE (1973), Adjunct Instructor in Hospital Administration
A.B., 1969 (Akron); B.S., 1971 (Ohio State University)

MARGARET A. COOK (1974), Assistant Professor of Physiology
B.Sc., 1969, Ph.D., 1973 (University of London)

ALBERT DERWIN COOPER (1940), Clinical Associate Professor of Medicine
M.D., 1931, A.B., 1932 (George Washington)

BARRET R. COOPER (1974), Assistant Professor of Psychiatry and Pharmacology
B.A., 1966 (Missouri); M.S., 1969, Ph.D., 1971 (Purdue)

---

[12]Resigned June 30, 1975.

CARY W. COOPER (1968), Associate Professor of Pharmacology
A.B., 1961 (Bowdoin); Ph.D., 1965 (Rice)
GEORGE M. COOPER (1956), Clinical Instructor in Surgery
B.A., 1941 (North Carolina); M.D., 1944 (Virginia)
HERBERT A. COOPER (1974), Assistant Professor of Pathology and Pediatrics
B.A., 1960, M.D., 1964 (Kansas)
TIM ERVIN COOPER, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1955 (Davidson); M.D., 1959 (Duke)
BILLIE F. CORDER (1975), Lecturer in Psychiatry
B.S., 1957 (Memphis State); M.A., 1959 (Vanderbilt); Ed.D., 1966 (Kentucky)
LIONEL COSIN (1970), Clinical Professor of Medicine
F.R.C.S., 1936 (University of London); M.A., 1960 (Oxford)
NORMAN A. COULTER, JR. (1965), Professor of Surgery and Physiology
B.S., 1941 (Virginia Polytechnic Institute); M.D., 1950 (Harvard)
JOHN GOODWIN CRADDOCK (1966), Clinical Associate Professor of Medicine
A.B., 1950, M.D., 1954 (Duke)
ERNEST CRAIGE (1952), Henry A. Foscue Distinguished Professor of Cardiology
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)
GEORGE LEVERING CRANE (1965), Clinical Instructor in Medicine
A.B., 1935 (North Carolina); M.D., 1940 (Cornell)
GEORGE WILLIAM CRANE, JR. (1952), Clinical Professor of Dermatology
M.D., 1945 (Northwestern)
JESSE CLARENCE CRAVEN (1969), Clinical Associate Professor of Medicine
A.B., 1958 (Duke); M.D., 1962 (North Carolina)
JAMES J. CRAWFORD (1965), Lecturer in Bacteriology
B.A., 1953, M.A., 1954 (Missouri); Ph.D., 1962 (North Carolina)
WILLIAM F. CREDLE, JR. (1975), Clinical Assistant Professor of Medicine
B.S., 1963 (Wake Forest); M.D., 1967 (Medical College of Virginia)
TAKEY CRIST (1968), Clinical Assistant Professor of Obstetrics and Gynecology
A.B., 1959, M.D., 1965 (North Carolina)
DANIEL L. CROCKER (1975), Clinical Assistant Professor of Medicine
B.S., 1966 (Davidson); M.D., 1970 (North Carolina at Chapel Hill)
WILLIAM JAMES CROMARTIE (1951), Professor of Bacteriology and Medicine
M.D., 1937 (Emory)
ROBERT D. CROOM III (1972), Assistant Professor of Surgery
B.S., 1960 (Davidson); M.D., 1964 (North Carolina)
ROBERT E. CROSS (1974), Assistant Professor of Medicine, Biochemistry and Nutrition, and Pathology
B.S., 1965, M.S., 1967 (Toledo); Ph.D., 1971 (Florida)
ROBERT G. CROUNSE (1973), Professor of Medical Allied Health Professions and Dermatology
B.S., 1952, M.D., 1955 (Yale)
WILLIAM M. CRUTCHFIELD (1973), Clinical Instructor in Surgery
B.S., 1962, M.D., 1966 (North Carolina)
PEDRO CUATRECASAS (1975), Adjunct Professor of Pharmacology and Medicine
A.B., 1958, M.D., 1962 (Washington University, St. Louis)
OSCAR S. CUNAMAN (1975), Clinical Assistant Professor of Medicine
A.B., 1948 (University of Santo Tomas); M.D., 1954 (Manila Central University)
JOHN L. CURRIE (1974), Clinical Assistant Professor of Obstetrics-Gynecology
B.S., 1964, M.D., 1967 (North Carolina)
PETER CURTIS (1972-73; 1975), Assistant Professor of Family Medicine
M.B.B.S., 1962, M.R.C.P., 1967, D. Obst., 1968 (University of London)
THOMAS EDWIN CURTIS (1954), Professor of Psychiatry and Clinical Professor in School of Nursing
M.D., 1950 (Duke)
LAWRENCE M. CUTCHIN (1968), Clinical Assistant Professor of Medicine
A.B., 1958, M.D., 1962 (North Carolina)

WILLIAM GRANT DAHLSTROM (1964), Clinical Professor of Psychology in Psychiatry
B.A., 1944, Ph.D., 1949 (Minnesota)
FREDERIC G. DALLDORF (1965), Professor of Pathology
B.A., 1954 (Bowdoin College); M.D., 1958 (Cornell)
JOANNA S. DALLDORF (1963; 1969), Assistant Professor of Pediatrics
A.B., 1954, M.D., 1958 (Cornell)
[13]JOHN T. DALY (1972), Assistant Professor of Pathology
B.S., 1964 (Manhattan); M.D., 1968 (Cornell)
THOMAS B. DAMERON, JR. (1963; 1968), Clinical Associate Professor of Surgery
M.D., 1947 (Duke)
THOMAS BRANTLEY DANIEL (1965), Clinical Associate Professor of Surgery (Urology)
B.S., 1938 (Davidson College); M.D., 1943 (Bowman Gray)
JOHN MARTYN DANIELSON (1972), Adjunct Professor of Hospital Administration
B.A., 1947, M.H.A., 1949 (Minnesota)
EDWARD W. DAVIDIAN (1972), Assistant Professor of Anesthesiology
B.A., 1963, M.D., 1968 (North Carolina)
JAMES HUBERT DAVIDSON (1965), Clinical Assistant Professor of Medicine
B.A., 1942 (Washington and Lee); M.D., 1945 (Medical College of Virginia)
J. R. T. DAVIDSON (1972), Clinical Assistant Professor of Psychiatry
MB-BS, 1967 (University College Hospital, London); MRCS-LRCP, 1967, DPM, 1970, MRC, 1972 (University College, London)
DAN W. DAVIS (1975), Assistant Professor of Pediatrics and Education
B.S., 1962 (Maryville); M.A., 1963, Ph.D., 1970 (George Peabody)
JAMES EVANS DAVIS (1954), Clinical Professor of Surgery
A.B., 1940 (North Carolina); M.D., 1943 (Pennsylvania)
PATRICIA F. DAVIS (1973), Clinical Instructor in Physical Therapy
B.S. in P.T., 1964 (North Carolina)
ROBERT N. DAVIS (1968), Clinical Assistant Professor of Dermatology
B.S., 1958 (Virginia Tech); M.D., 1962 (Duke)
JOHN CHARLES DAW (1971), Assistant Professor of Physiology
B.A., 1959, Ph.D., 1966 (Western Reserve)
SHELTON P. DAWSON (1972), Clinical Assistant Professor of Pediatrics
B.A., 1952, M.D., 1955 (George Washington)
WASHINGTON J. DeANGELIS (1969), Clinical Assistant Professor of Family Medicine
B.S., 1948 (Inst. A. Vazquez Acevedo); M.D., 1959 (University of Uruguay)
GORDON DeFRIESE (1973), Assistant Professor of Family Medicine
B.S., 1963 (Middle Tennessee State University); M.A., 1966, Ph.D., 1967 (Kentucky)
DAVID J. DELANY (1972), Assistant Professor of Radiology
M.B., Chir., 1966 (Cambridge, England)
FLOYD W. DENNY, JR. (1960), Alumni Distinguished Professor of Pediatrics
B.S., 1944 (Wofford); M.D., 1946 (Vanderbilt)
FREDERICK J. deSERRES (1973), Adjunct Professor of Pathology
B.S., 1951 (Tufts); Ph.D., 1955 (Yale)
JOSEPH LEW DEWALT (1963), Clinical Associate Professor of Surgery and Clinical Assistant Professor of Medicine
B.A., 1950, M.D., 1954 (North Carolina)
WALTER E. DEYTON (1969), Clinical Assistant Professor of Radiology
B.S., 1952, M.D., 1965 (North Carolina)
JOSE A. DIAZ-BUXO (1975), Clinical Instructor in Medicine
B.S., 1967, M.D., 1970 (University of Puerto Rico)

---

[13]Resigned September 30, 1975.

GRIGGS CAMERON DICKSON (1964), Clinical Assistant Professor of Pediatrics
B.S., 1952, M.D., 1955 (North Carolina)
MARGARET B. DILLARD (1975), Assistant Professor of Radiology
B.A., 1961 (Mt. Holyoke); Ph.D., 1969 (North Carolina)
ROBERT G. DILLARD (1974), Assistant Professor of Pediatrics
B.A., 1964 (University of the South); M.D., 1968 (Yale)
JAMES ROBERT DINEEN (1964), Clinical Associate Professor of Surgery (Orthopedics)
M.D., 1945 (Rochester)
JAMES R. DINGFELDER (1972), Assistant Professor of Obstetrics-Gynecology
B.A., 1961 (Thiel College); M.D., 1965 (Jefferson Medical College)
MICHAEL J. DONAHUE (1975), Clinical Instructor in Dermatology
B.S., 1963 (Manhattan College, New York); M.D., 1967 (Creighton)
JOHN D. DORSETT, JR. (1969), Clinical Assistant Professor of Medicine
A.B., 1947 (North Carolina); M.D., 1951 (Washington)
RICHARD M. DOUGHTEN (1968), Clinical Assistant Professor of Pediatrics
A.B., 1957 (Princeton); M.D., 1965 (North Carolina)
JOHN M. DOUGLAS (1969), Clinical Associate Professor of Medicine
B.S., 1935 (Davidson); M.D., 1939 (Duke); M.S., 1948 (Minnesota)
FRANCIS B. DOVE, JR. (1975), Clinical Instructor in Medicine
B.S., 1963 (North Carolina State); M.D., 1967 (Bowman Gray)
DAVID E. DOWNIE (1971), Assistant Professor of Surgery
B.S.E.E., 1956 (Massachusetts Institute of Technology); M.S.E.E., 1959 (Pennsylvania); Ph.D., 1970 (California)
OWEN W. DOYLE (1968), Clinical Associate Professor of Radiology
B.S., 1945 (Notre Dame); M.D., 1947 (Yale)
DUANE A. DREYER (1974), Assistant Professor of Oral Surgery and Physiology (part-time)
B.S., 1965 (Ohio Northern University); Ph.D., 1966 (Cincinnati)
FRANCES C. DRIVER (1973), Assistant Professor of Psychiatry
B.A., 1964 (Montana State); M.D., 1968 (Rochester)
KENNETH HARRISON DUDLEY (1967), Associate Professor of Pharmacology
B.S., 1959 (Elon); Ph.D., 1963 (North Carolina)
MICHAEL DUGAN (1973), Clinical Assistant Professor of Family Medicine
M.D., 1954 (Indiana)
GORDON SHELTON DUGGER (1954), Professor of Surgery
A.B., 1941 (North Carolina); M.D., 1945 (Johns Hopkins)
WILLIAM M. DUNLAP (1973); Clinical Assistant Professor of Medicine
A.B., 1961 (North Carolina); M.D., 1965 (Duke)
DONAL DUNPHY (1973), Professor of Pediatrics
B.A., 1939 (Holy Cross); M.D., 1944 (Yale)
ED EADY (1975), Clinical Instructor in Surgery
B.S., 1963 (Washington and Lee); M.D., 1967 (Virginia)
JOEY W. EAKINS (1975), Clinical Assistant Professor of Medicine
M.D., 1970 (Bowman Gray)
WILLIAM EWART EASTERLING (1964), Professor of Obstetrics and Gynecology
A.B., 1952 (Duke); M.D., 1956 (North Carolina)
WILLIAM FARNUM EASTMAN (1966), Clinical Assistant Professor of Psychiatry and Family Life
B.S., 1955 (Rutgers); B.D., 1959 (Yale); M.S., 1960, Ed.D., 1964 (Pennsylvania); M.S.W., 1966 (Maryland)
HUBERT A. EATON, JR. (1974), Clinical Assistant Professor of Medicine
B.A., 1965 (Fisk); M.D., 1969 (Meharry)
[14]MARSHALL H. EDGELL (1968), Associate Professor of Bacteriology
B.S., 1958 (Massachusetts Institute of Technology); M.S., 1964, Ph.D., 1965 (Pennsylvania State)

[14]Leave of absence, February 1, 1976-February 1, 1977.

[15]WILBERT EDGERTON (1965), Professor of Psychology in Psychiatry and Psychology
B.S., 1940 (Guilford College); M.A., 1947 (Florida); Ph.D., 1953 (Duke)

GEORGE SADLER EDWARDS (1962), Clinical Assistant Professor of Surgery (Orthopedics)
B.S., 1950 (Davidson); M.D., 1957 (North Carolina)

COURTNEY D. EGERTON (1965), Clinical Assistant Professor of Obstetrics and Gynecology
M.D., 1946 (University of Louisville)

LAMAR E. V. EKBLADH (1969-73, 1975), Assistant Professor of Obstetrics and Gynecology
B.A., 1964 (Boston University); M.D., 1968 (Yale)

FREDERICK W. ELDRIDGE (1973), Professor of Medicine and Physiology
A.B., 1945, M.D., 1948 (Stanford)

GERTRUDE B. ELION (1973), Adjunct Professor of Pharmacology
B.A., 1937 (Hunter); M.S., 1941 (New York University); D.Sc.(Hon.), 1969 (George Washington); D.M.S.Sc.(Hon.), (Brown)

FRED WILSON ELLIS (1944), Professor of Pharmacology
B.S., 1936 (South Carolina); M.S., 1938 (Florida); Ph.D., 1941 (Maryland); M.D., 1951 (Duke)

E. BRUCE ELLISTON (1975), Clinical Assistant Professor of Family Medicine
B.A., 1968 (Southern Missionary College); M.D., 1973 (Loma Linda)

STANLEY K. ENGLE (1974), Clinical Instructor in Anesthesiology
B.A., 1969 (Messiah College); B.S., 1971 (Florida Technical Institute-Orlando)

ELLA GRAY ENNIS (1965), Associate Professor of Medical Allied Health Professions and Lecturer in Physiology
A.B., 1945 (Women's College, N.C.); M.A., 1948, Ph.D., 1964 (North Carolina)

[16]DANIEL J. ENTINGH (1972), Instructor in Biochemistry and Nutrition
B.S., 1964 (Calvin College); Ph.D., 1969 (Chicago)

JOHN LAWRENCE ETHERINGTON (1961), Clinical Assistant Professor of Ophthalmology
M.D., C.M., 1936 (Queens University, Canada)

CHARLES A. EURE (1973), Clinical Assistant Professor of Medicine
A.B., 1963, M.D., 1967 (North Carolina)

CONNIE J. EVASHWICK (1975), Assistant Professor of Hospital Administration
A.B., 1969, M.A., 1970 (Stanford); M.Sc., 1971, D.Sc., 1974 (Harvard)

JOHN ALEXANDER EWING (1954), Professor of Psychiatry
M.B., Ch.B., 1946, M.D., 1954 (University of Edinburgh); D.P.M., 1949 (London)

[17]FREDERIC I. FAGELMAN (1973), Assistant Professor of Surgery
B.S., 1962 (Long Island); M.D., 1966 (Vermont)

ALICE McCANTS FAILY (1969), Assistant Professor of Psychology in Psychiatry
B.A., 1956 (Michigan); M.A.T., 1959 (Radcliffe); M.A., 1963 (Atlanta University); Ph.D., 1971 (Georgia)

RUTH FALK (1963), Assistant Professor of Psychology and Assistant Professor of Psychology in Psychiatry and Pediatrics
B.A., 1953 (Melbourne University); Ph.D., 1963 (Michigan)

PAUL B. FAREL (1972), Assistant Professor of Physiology
B.A., 1966 (California at Berkeley); M.A., 1967, Ph.D., 1970 (California at Los Angeles)

CHARLES DUDLEY FARMER (1969), Clinical Associate Professor of Medicine
A.B., 1955, M.D., 1958 (Indiana); M.S., 1966 (Minnesota)

JOHN L. FARMER, JR. (1973), Clinical Assistant Professor of Dermatology
B.S., 1951, M.D., 1955 (Duke)

---

[15]Leave of absence, January 1, 1974-January 1, 1976.
[16]Resigned September 17, 1975.
[17]Resigned June 30, 1975.

THOMAS WOHLSEN FARMER (1952), Sarah Graham Kenan Professor of Neurology and Medicine
A.B., 1935 (Harvard); M.A., 1937 (Duke); M.D., 1941 (Harvard)
JOHN L. FARRIS (1975), Adjunct Assistant Professor of Medical Allied Health Professions
B.A., 1969 (Belmont Abbey); M.A., 1971 (Appalachian State University)
ROBERT GILBERT FAUST (1963), Professor of Physiology
A.B., 1953 (New York University); M.S., 1957 (Southern California); Ph.D., 1960 (Princeton)
MICHAEL D. FEEZOR (1969), Adjunct Assistant Professor of Surgery
B.S., 1963 (Massachusetts Institute of Technology); Ph.D., 1969 (North Carolina)
ALLEN MARK FEINBERG (1967), Assistant Professor of Psychology in Psychiatry and Psychology
B.A., 1959 (Brandeis University); M.A., 1961 (New School for Social Research); Ph.D., 1966 (Florida State University)
RICHARD R. FELIX (1975), Clinical Instructor in Psychiatry
B.S., 1968, M.D., 1972 (Ohio State)
ROBERT L. FENNING (1970), Clinical Associate Professor of Medicine
B.A., 1960 (Pennsylvania); M.D., 1964 (Vermont)
BEMJAMIN B. FERDON (1970), Clinical Assistant Professor of Medicine
M.D., 1962 (Tulane)
BILLY LEE FERGUSON (1969), Clinical Assistant Professor of Pediatrics
B.S., 1954 (Guilford); M.S.P.H., 1955 (North Carolina); M.D., 1959 (Bowman Gray)
GERALD W. FERNALD (1967), Associate Professor of Pediatrics
B.S., 1957, M.D., 1960 (North Carolina)
CHARLES R. FERNANDEZ (1975), Clinical Instructor in Medicine
B.S., 1964, M.D., 1968 (Tulane)
HERIBERTO A. FERRARI (1972), Clinical Professor of Anesthesiology
M.D., 1954, Doctor in Medicine, 1957 (University of Buenos Aires, Argentina)
[18]ALEXANDER B. FILIMONOV (1972), Assistant Professor of Radiology
B.S., 1964, M.D., 1966 (Wisconsin at Madison)
ARTHUR L. FINN (1970), Professor of Medicine
A.B., 1954 (Harvard); M.D., 1958 (Boston)
WILLIAM F. FINN (1974), Assistant Professor of Medicine
B.S., 1962 (LeMoyne); M.D., 1966 (State University of New York at Syracuse)
JANET JORDAN FISCHER (1954), Professor of Medicine and Associate Professor of Bacteriology and Immunology
A.B., 1944 (Vassar); M.D., 1948 (Johns Hopkins)
NEWTON DUCHAN FISCHER (1952), Professor of Surgery (Otolaryngology)
B.S., 1942, A.B., 1943, M.D., 1945 (Texas)
[19]JOHN I. FISHBURNE, JR. (1969), Associate Professor of Obstetrics and Gynecology and Assistant Professor of Anesthesiology
A.B., 1959 (Princeton); M.D., 1963 (Medical College of South Carolina)
OTIS N. FISHER (1968), Clinical Assistant Professor of Radiology
A.B., 1955, M.D., 1959 (North Carolina)
MERREL D. FLAIR (1970), Associate Professor of Psychology in Psychiatry
B.S., 1953, M.S., 1954 (Kansas State Teachers College); Ph.D., 1964 (Northwestern)
WILLIAM S. FLASH (1974), Clinical Associate Professor of Health Administration, Department of Psychiatry
B.A., 1948, M.P.A., 1950, Ph.D., 1954 (Harvard)
PAUL A. FLEMING (1969), Clinical Instructor in Obstetrics and Gynecology
M.D., 1955 (University of Utrecht, The Netherlands)

---

[18]Resigned April 30, 1975.
[19]Resigned June 30, 1975.

WILLIAM LEROY FLEMING (1952), Professor of Preventive Medicine in the Department of Family Medicine, and Professor of Medicine
B.A., 1925, M.S., 1927, M.D., 1931 (Vanderbilt)
JOHN DAVID FLETCHER (1963), Clinical Assistant Professor of Pediatrics
B.A., 1953 (Emory and Henry College); M.D., 1959 (Virginia)
RAMON U. FLORENZANA (1975), Assistant Professor of Psychiatry
M.D., 1968 (University of Chile); M.P.H., 1975 (University of North Carolina at Chapel Hill)
ENOLA SUE FLOWERS (1957), Assistant Professor of Physical Therapy
B.S., 1944 (High Point College); Cert. P.T., 1945 (O'Reilly)
JAMES DONALD FOLDS (1969), Assistant Professor of Bacteriology
B.S., 1962 (Georgia); Ph.D., 1967 (Medical College of Georgia)
PAIGE B. FOLLO (1968), Clinical Associate Professor of Pediatrics
A.B., 1944 (University of Alabama); M.D., 1947 (Harvard)
ELIZABETH L. FORD (1968), Clinical Associate Professor of Pediatrics
B.S., 1939 (John B. Stetson University); M.D., 1943 (Pennsylvania)
CHRISTOPHER C. FORDHAM III (1957-69; 1971), Professor of Medicine
M.D., 1951 (Harvard)
W. DAVIS FORT (1965), Clinical Assistant Professor of Obstetrics and Gynecology
B.B.A., 1949, B.S., 1956 (Georgia); M.D., 1960 (Tennessee)
JAMES R. FOSTER (1975), Assistant Professor of Medicine
B.A., 1965 (Amherst); M.D., 1969 (Cornell)
JAMES R. FOUTS (1970), Adjunct Professor of Pharmacology
B.S., 1951, Ph.D., 1954 (Northwestern)
[20]F. GERALD W. FOWKES (1974), Visiting Assistant Professor of Family Medicine
S.Sc., 1967, M.B.Ch.B., 1970 (Edinburgh University, Scotland); D.T.M., 1972, M.R.C.P., 1974 (Liverpool University, England)
BRUCE A. FOWLER (1975), Adjunct Assistant Professor of Pathology
B.S., 1968 (University of Washington); Ph.D., 1972 (University of Oregon)
WESLEY C. FOWLER, JR. (1973), Assistant Professor of Obstetrics-Gynecology
B.S., 1961, M.D., 1966 (North Carolina)
POWELL G. FOX, JR. (1973), Clinical Associate Professor of Surgery
B.S., 1948 (The Citadel); M.D., 1952 (Medical College of Virginia)
[21]JANE M. FOY (1974), Instructor in Pediatrics
B.A., 1967 (Wellesley); M.D., 1971 (North Carolina)
HUGH E. FRASER, JR. (1968), Clinical Assistant Professor of Dermatology
B.S., 1952 (Richmond); M.D., 1956 (Medical College of Virginia)
JAMES R. FRAZIER (1973), Assistant Professor of Psychology in Psychiatry
B.S., 1961, M.S., 1964 (North Carolina State); Ph.D., 1968 (Florida State)
PATRICIA DIANNE FRAZIER (1972), Assistant Professor of Biochemistry and Nutrition
B.A., 1964 (Drew); Ph.D., 1969 (Duke)
DAVID FRANKLIN FREEMAN (1961), Clinical Associate Professor of Psychiatry and Lecturer in Psychiatry
B.S., 1948 (Wake Forest); M.D., 1951 (Bowman Gray)
FRANK SIKES FRENCH (1964), Associate Professor of Pediatrics
A.B., 1951 (Kansas); M.D., 1956 (Rochester)
FLOYD A. FRIED (1970), Professor of Surgery
B.S., 1957 (Brooklyn College); M.D., 1961 (Chicago)
W. H. FRIEDMAN (1972), Associate Professor of Psychiatry
B.A., 1958 (Kansas); M.A., 1960, Ph.D., 1964 (Connecticut)

---

[20]Resigned October 31, 1975.
[21]Resigned June 30, 1975.

HENRY T. FRIERSON (1974), Assistant Professor of Family Medicine and Education
B.S., 1967, M.Ed., 1960 (Wayne State University); D.Ed., 1974 (Michigan State University)
MARY S. K. FULGHUM (1975), Assistant Professor of Obstetrics and Gynecology
B.A., 1967, M.D., 1971 (North Carolina at Chapel Hill)
ROBERT E. GADDY (1971), Clinical Assistant Professor of Medicine
M.D., 1959 (Duke)
M. DAVID GALINSKY (1965), Clinical Professor of Psychology in Psychiatry
A.B., 1956 (Duke); M.A., 1959, Ph.D., 1961 (Michigan)
BRYANT LEROY GALUSHA (1965), Clinical Associate Professor of Pediatrics
A.B., 1948 (West Virginia); M.D., 1952 (Western Reserve)
EDGAR CORNELIUS GARRABRANT (1970), Clinical Assistant Professor of Surgery
B.S., 1963, M.D., 1966 (North Carolina)
ROBERT L. GARRARD (1968), Clinical Associate Professor of Psychiatry
A.B., M.S., 1928, B.S. in Med., 1930 (Alabama); M.D., 1932 (Harvard)
NORMAN H. GARRETT, JR. (1968), Clinical Professor of Medicine
M.D., 1950 (Duke)
JOHN T. GATZY, JR. (1973), Associate Professor of Pharmacology
B.S., 1958 (Pennsylvania State); Ph.D., 1963 (Rochester)
STEPHEN H. GEHLBACH (1974), Assistant Professor of Pediatrics and Adjunct Assistant Professor of Epidemiology, School of Public Health
B.A., 1964 (Harvard); M.D., 1968 (Case Western Reserve); M.P.H., 1974 (North Carolina)
WILLIAM HAROLD GENTRY (1969), Clinical Associate Professor of Medicine
M.D., 1949 (Duke)
WESLEY CRITZ GEORGE (1920), Professor of Histology and Embryology, Emeritus
A.B., 1911, M.A., 1912, Ph.D., 1918 (North Carolina)
JOACHIM DIETER GERATZ (1960), Professor of Pathology
M.D., 1953 (J. W. Goethe University, Frankfurt, Germany)
JAWAHAR N. GHIA (1971), Assistant Professor of Anesthesiology
M.D., 1963 (Seth G. S. Medical College, University of Bombay)
ROBERT SAMUEL GILGOR (1969), Clinical Assistant Professor of Dermatology
B.S., 1958 (Ursinus); M.D., 1962 (Pennsylvania)
HOWARD W. GILLEN (1973), Clinical Professor of Medicine
B.S., 1947, M.D., 1949 (Illinois)
BROOKS W. GILMORE (1968), Clinical Assistant Professor of Medicine
B.S., 1951 (Wake Forest); M.D., 1956 (Pennsylvania)
WILLIAM M. GINN (1971), Clinical Assistant Professor of Medicine
M.D., 1959 (North Carolina)
MARIA GISPERT (1966), Associate Professor of Psychiatry
B.S., 1945 (Academie Hispano Mexicana); M.D., 1952 (Facultad de Medicina, U.N.A. de Mexico)
HILLEL J. GITELMAN (1966), Professor of Medicine
A.B., 1954 (Princeton); M.D., 1958 (Rochester)
MICHAEL E. GLASSCOCK (1973), Clinical Associate Professor of Surgery (Otolaryngology)
B.S., 1955 (Tennessee Polytechnical Institute); M.D., 1958 (Tennessee)
RICHARD LEE GLASSER (1957), Associate Professor of Physiology
A.B., 1949 (Johns Hopkins); Ph.D., 1957 (Maryland)
EDWARD GLASSMAN (1960), Professor of Biochemistry and Nutrition
B.A., 1949, M.S., 1951 (New York University); Ph.D., 1955 (Johns Hopkins)

[22]WILLIAM PAUL GLEZEN (1965), Associate Professor of Pediatrics
B.S., 1953 (Purdue); B.S., 1954, M.D., 1956 (Illinois)
HAROLD LACY GODWIN (1956), Clinical Associate Professor of Medicine
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)
HERMAN ALLEN GODWIN, JR. (1975), Clinical Associate Professor of Medicine
A.B., 1959 (North Carolina); M.D., 1963 (Bowman Gray)
MARY B. GOLBY (1965), Clinical Assistant Professor of Medicine
A.B., 1948 (North Carolina at Greensboro); M.D., 1953 (George Washington)
ALEXANDER FAIRLEY GOLEY (1962), Clinical Assistant Professor of Medicine
B.S., 1952 (Davidson); M.D., 1956 (North Carolina)
HARRY GOODER (1961), Professor of Bacteriology
B.Sc., 1949, Ph.D., 1952 (Leeds University)
JOHN P. GOODSON (1975), Clinical Instructor in Surgery
B.S., 1959, M.D., 1963 (North Carolina)
ELAINE LONG GOOLSBY (1966), Clinical Associate Professor, Department of Family Medicine
A.B., 1951 (Duke); M.S.W., 1963 (North Carolina)
DANIEL GOTTOVI (1973), Clinical Assistant Professor of Medicine
B.A., 1960 (Hamilton); M.D., 1965 (Rochester)
CARL WILLIAM GOTTSCHALK (1953), Kenan Professor of Medicine and Physiology
B.S., 1942 (Roanoke College); M.D., 1945 (Virginia); Sc.D., 1966 (Roanoke College)
BARRY GOZ (1974), Associate Professor of Pharmacology
B.A., 1958 (Columbia); Ph.D., 1965 (State University of New York)
GLORIA GRAHAM (1973), Clinical Assistant Professor of Dermatology
B.S., 1957 (Wake Forest); M.D., 1961 (Bowman Gray)
JOHN BORDEN GRAHAM (1946), Alumni Distinguished Professor of Pathology
B.S., 1938 (Davidson); M.D., 1942 (Cornell)
GEORGE R. GRANT (1971), Clinical Associate Professor of Medicine
M.D., 1963 (Duke)
LESTER D. GRANT (1970), Assistant Professor of Psychiatry and Anatomy
B.S., 1964 (Pittsburgh); M.S., 1967, Ph.D., 1969 (Carnegie-Mellon)
TIMOTHY K. GRAY (1971), Associate Professor of Medicine and Pharmacology
B.S., 1961 (Loyola); M.D., 1965 (Maryland)
JULIUS A. GREEN, JR. (1966), Clinical Assistant Professor of Radiology
B.S., 1953, M.D., 1957 (North Carolina)
ROBERT GREENBERG (1971), Assistant Professor of Pediatrics and Family Medicine
A.B., 1960 (Harvard); M.D., 1964 (Pennsylvania)
KATHRYN W. GREENHOOT (1974), Clinical Assistant Professor of Anesthesiology
B.A., 1958, M.D., 1962 (University of California at Los Angeles)
JAMES B. GREENWOOD (1973), Clinical Assistant Professor of Family Medicine
B.S., 1942 (North Carolina); M.D., 1944 (Pennsylvania)
THOMAS G. GREER (1969), Clinical Assistant Professor of Obstetrics and Gynecology
A.B., 1950 (Tusculum College); M.D., 1954 (Bowman Gray)
JOHN M. GREGG (1974), Associate Professor of Oral Surgery and Anesthesiology
B.A., 1961, D.D.S., 1965, M.S., 1967, M.S. in Oral Surgery, 1969, Ph.D., 1970 (Michigan)
JEAN GREGORY (1973), Clinical Instructor in Physical Therapy
B.S., 1944 (North Carolina at Greensboro)
TOMMY B. GRIFFIN (1973), Clinical Assistant Professor of Dermatology
B.S., 1957 (Davidson); M.D., 1961 (Pennsylvania)

[22]Resigned July 31, 1975.

FREDERICK H. GRIFFITH (1975), Adjunct Associate Professor of Hospital Administration
Optometry, 1950 (College of Optometry of Ontario); B.A., 1972 (Laurentian University)
CLAUD McNEILL GRIGG (1969), Clinical Associate Professor of Medicine
M.D., 1961 (North Carolina)
THOMAS R. GRIGGS (1973), Assistant Professor of Medicine and Pathology
A.B., 1965, M.D., 1969 (North Carolina)
JOE WHEELER GRISHAM (1973), Professor of Pathology
B.A., 1953, M.D., 1957 (Vanderbilt)
GARY A. GROOMS (1975), Clinical Instructor in Surgery
M.D., 1963 (Tennessee)
[23]WILLIAM GROSSMAN (1971), Associate Professor of Medicine
B.A., 1961 (Columbia); M.D., 1965 (Yale)
FAUSTINO C. GUINTO (1968), Associate Professor of Radiology
M.D., 1962 (University of Santo Tomas, Manila)
GOOL K. GUPTA (1975), Clinical Instructor in Medicine
M.B.B.S., 1966 (Manlana Azad Medical College); M.D., 1970 (Delhi University, India)
JAGMOHAN D. GUPTA (1975), Assistant Professor of Medicine
M.B.B.S., 1966 (Government Medical College); M.D., 1970 (Delhi University, India)
SUSAN S. GUSTKE (1976), Instructor in Medicine
M.D., 1964 (West Virginia)
ALDINE K. GUTHRIE (1975), Adjunct Assistant Professor of Medical Allied Health Professions
B.S., 1972 (Midwestern University)
JOHN T. GWYNNE (1974), Instructor in Medicine
B.S.E.E., 1965 (Princeton); M.D., 1970 (Duke)
EDWARD D. HAAK, JR. (1972), Clinical Instructor in Medicine
B.S., 1964 (Purdue); M.D., 1968 (Virginia)
[24]MOHAMMAD REZE HABIBIAN (1972), Assistant Professor of Radiology
M.D., 1959 (Tehran University, Iran)
NORTIN M. HADLER (1973), Assistant Professor of Medicine
A.B., 1964 (Yale); M.D., 1968 (Harvard)
THOMAS M. HAIZLIP (1974), Clinical Assistant Professor of Psychiatry
B.S., 1954 (Wake Forest); M.D., 1958 (North Carolina)
LESLIE M. HALE, JR. (1967-73; 1974), Clinical Associate Professor of Ophthalmology
A.B., 1957, M.D., 1961 (North Carolina)
COLIN D. HALL (1969), Assistant Professor of Neurology and Medicine
M.B.Ch.B., 1966 (Aberdeen University, Scotland)
DONALD G. HALL (1973), Clinical Assistant Professor of Medicine
B.S., 1961, M.D., 1965 (Florida)
JOHN H. HALL (1970), Clinical Assistant Professor of Dermatology
A.B., 1960 (Oklahoma); M.D., 1964 (Duke)
WARNER L. HALL (1975), Clinical Instructor in Obstetrics and Gynecology
B.S., 1957 (Davidson); M.D., 1961 (Duke)
WILLIAM B. HALL (1974), Clinical Assistant Professor of Surgery
B.S., 1950 (Randolph-Macon College); M.D., 1954 (Medical College of Virginia)
SEYMOUR L. HALLECK (1972), Professor of Psychiatry
Ph.B., 1948, B.S., 1950, M.D., 1952 (Chicago); Sc.D., 1969 (Rockford)
GEORGE CAVERNO HAM (1951), Clinical Professor of Psychiatry
M.D., 1937 (Pennsylvania)

---

[23]Resigned June 30, 1975.
[24]Leave of absence, November 1, 1975-August 1, 1976.

GEORGE W. HAMBY (1973), Clinical Assistant Professor of Psychiatry
A.B., 1954, M.D., 1958 (North Carolina)
ALFRED W. HAMER (1973), Clinical Assistant Professor of Family Medicine
B.A., 1953, M.D., 1958 (North Carolina)
HAROLD F. HAMIT (1975), Clinical Professor of Surgery
A.B., 1942, M.D., 1945 (New York University); M.S., 1955 (Colorado)
HARVEY J. HAMRICK (1969), Assistant Professor of Pediatrics and Family Medicine
A.B., 1961, M.D., 1967 (North Carolina)
NORRIS B. HARBOLD (1973), Clinical Assistant Professor of Medicine
B.S., 1956 (USMA, West Point); M.D., 1966 (George Washington)
JOSEPH H. HARDISON (1971), Clinical Associate Professor of Medicine
M.D., 1956 (Duke)
ROY ALLEN HARE (1954), Clinical Professor of Medicine
B.S., 1942 (Wake Forest); M.D., 1945 (Bowman Gray)
HERBERT SPENCER HARNED, JR. (1958), Professor of Pediatrics
B.S., 1942, M.D., 1945 (Yale)
JEAN G. HARNED (1971), Assistant Professor of Clinical Social Work in Family Medicine
B.A., 1950 (Boston); MS.W., 1963 (North Carolina)
CURTIS HARPER (1971), Associate Professor of Pharmacology
B.S., 1959, M.S., 1961 (Tuskegee); M.S., 1965 (Iowa); Ph.D., 1969 (Missouri)
JAMES ROBINSON HARPER (1967), Clinical Associate Professor of Medicine
A.B., 1956, M.D., 1960 (North Carolina)
BERNARD B. HARRIS (1972), Adjunct Assistant Professor of Psychiatry
B.S.E., 1948 (Northern Illinois State); M.B., 1951, Ph.D., 1955 (Wisconsin)
CARLTON M. HARRIS (1968), Clinical Assistant Professor of Medicine
B.S., 1945 (Wake Forest); M.D., 1947 (Bowman Gray)
CHARLES WALKER HARRIS (1969), Clinical Associate Professor of Medicine
B.S., 1956 (Davidson); M.D., 1960 (North Carolina)
ELZIE F. HART, JR. (1974), Clinical Assistant Professor of Surgery
B.S., 1964, M.D., 1967 (North Carolina)
LARRY GLEN HART (1973), Adjunct Associate Professor of Pharmacology
B.S., 1960, M.S., 1962, Ph.D., 1964 (State University of Iowa)
HENRY G. HARTZOG III (1969), Clinical Assistant Professor of Surgery
A.B., 1958, M.D., 1962 (North Carolina)
[25]RONALD L. HARVEY (1974), Adjunct Assistant Professor of Pathology
B.S., 1965 (Arizona at Tucson); M.D., 1970 (New Mexico)
KENNETH R. HASLAM (1973), Assistant Professor of Anesthesiology
A.B., 1956 (California); M.D., 1960 (Cornell)
CHARLES MATTHEWS HASSELL, JR. (1969), Clinical Assistant Professor of Pathology
B.S., 1954 (Davidson); M.D., 1958 (Pennsylvania, School of Medicine)
[26]AVIV I. HASSID (1973), Instructor in Biochemistry and Nutrition
B.S., 1966 (Robert College); Ph.D., 1973 (Minnesota)
MARTIN A. HATCHER, JR. (1968), Clinical Assistant Professor of Medicine
A.B., 1957, M.D., 1962 (Duke)
GEOFFREY HAUGHTON (1966), Professor of Bacteriology and Immunology
B.S., 1955, Ph.D., 1958 (University of Southampton, England)
WILLIAM P. HAWKINSON (1975), Clinical Instructor in Family Medicine
B.A., 1951, M.A., 1954 (Kent State); Ph.D., 1959 (Ohio State); Post Ph.D., 1965 (Minnesota)
CHESTER C. HAWORTH (1972), Clinical Instructor in Medicine
B.S., 1959 (Guilford); M.D., 1963 (Duke)

---

[25]Resigned October 31, 1975.
[26]Resigned September 30, 1975.

RICHARD I. HAYES (1975), Clinical Instructor in Obstetrics and Gynecology
B.S., 1961 (Akron); M.D., 1966 (Ohio State)
VIRGINIA HEBBERT (1967), Assistant Professor of Clinical Social Work in Family Medicine and Pediatrics
B.A., 1933 (Syracuse); M.S., 1941 (Columbia)
EDWARD McGOWAN HEDGPETH (1934), Clinical Professor of Medicine
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania)
EDWARD McGOWAN HEDGPETH, JR. (1969), Clinical Assistant Professor of Ophthalmology
B.S., 1958 (Davidson); M.D., 1962 (North Carolina)
WILLIAM D. HEIZER (1970), Associate Professor of Medicine
B.A., 1958 (King College); M.D., 1963 (Johns Hopkins)
GEORGE C. HEMINGWAY (1969), Clinical Assistant Professor of Family Medicine and Medicine (part-time)
B.S., 1958 (Davidson); M.D., 1963 (North Carolina)
MARY PAT B. HEMSTREET (1973), Assistant Professor of Pediatrics
B.S. PreMed., 1964 (Pennsylvania State); M.D., 1968 (Temple)
RICHARD R. HENDERSON (1973), Clinical Assistant Professor of Dermatology
B.A., 1957 (Maryville); M.D., 1961 (Indiana)
CHARLES H. HENDRICKS (1968), Robert A. Ross Distinguished Professor of Obstetrics and Gynecology
A.B., 1941, M.D., 1943 (University of Michigan)
MIRIAM M. HENSON (1975), Instructor in Surgery
B.A., 1957 (Park College); M.A., 1959 (Smith College); Ph.D., 1967 (Yale)
O'DELL W. HENSON (1974), Professor of Anatomy and Surgery
B.A., 1957, M.A., 1960 (Kansas); Ph.D., 1964 (Yale)
THOMAS A. HENSEN (1968), Clinical Associate Professor of Pediatrics
B.S., 1935 (North Carolina); M.D., 1937 (Temple)
CHARLES A. HERBST, JR. (1973), Assistant Professor of Surgery
B.S., 1963 (Mississippi College); M.D., 1967, M.S., 1972 (Mississippi University)
JOHN C. HERION (1957), Professor of Medicine
B.S., 1949 (Davidson); M.D., 1953 (Harvard)
EVA B. HERIZA (1973), Assistant Professor of Physical Therapy
B.S., 1964 (Otterbein); Cert. in P.T., 1966, M.A., 1967 (Duke)
JAN J. HERMANS (1964), Professor of Biochemistry and Nutrition
Ph.D., 1958 (University of Leiden, The Netherlands)
VICTOR GRAY HERRING III (1963), Clinical Associate Professor of Pediatrics
B.S., 1953, M.D., 1956 (North Carolina)
WILLIAM BENJAMIN HERRING (1963), Associate Professor of Medicine
B.S., 1949 (Wake Forest); M.D., 1953 (Bowman Gray)
ROBERT T. HERRINGTON (1967), Associate Professor of Pediatrics and Assistant Professor of Family Medicine
B.S., 1953 (Citadel); M.D., 1957 (University of Washington)
BARRY P. HICKEY (1974), Assistant Professor of Medicine
M.B.B.S., 1963 (University of Queensland)
FITZGERALD HIESTAND, JR. (1969), Clinical Associate Professor of Medicine
M.D., 1956 (Virginia)
ELAINE HILBERMAN (1972), Assistant Professor of Psychiatry
B.S., 1959 (City College of New York); M.D., 1964 (New York University)
DENNIS L. HILL (1973), Clinical Instructor in Medicine
B.A., 1962 (Westmount College); M.D., 1966 (University of Southern California)
W. WALLACE HILL (1971), Assistant Professor of Clinical Social Work in Family Medicine
B.A., 1956 (Ohio Wesleyan); M.S.W., 1958 (Rutgers)

[26a]GEORGE M. HIMADI (1969), Associate Professor of Radiology
B.S., 1941, M.D., 1944 (Duke)
PHILIP F. HIRSCH (1966), Kenan Professor of Pharmacology
B.S., 1950, Ph.D., 1954 (California)
JOHN C. HISLEY (1974), Assistant Professor of Obstetrics-Gynecology
B.A., 1960 (Washington and Lee); M.D., 1965 (Maryland)
GEORGE H. HITCHINGS (1973), Adjunct Professor of Pharmacology
B.S., 1927, M.S., 1928 (University of Washington); Ph.D., 1933 (Harvard)
[27]JOE S. HITT (1972), Visiting Professor of Surgery
B.S.E.E., 1962, M.S., 1962, Ph.D., 1964 (Carnegie Tech)
JACK BROWN HOBSON (1967), Clinical Associate Professor of Medicine
B.S., 1953 (Davidson); M.D., 1957 (North Carolina)
HORACE HAYDEN HODGES (1969), Clinical Assistant Professor of Medicine
B.S., 1937 (North Carolina); M.D., 1940 (Pennsylvania)
LOIS A. HODGES (1973), Clinical Assistant Professor of Physical Therapy
A.B., 1945 (North Carolina); M.A., 1959 (Stanford)
NEIL A. HOFFMAN (1974), Assistant Professor of Pathology
B.S., 1963, M.S., 1966, M.D., 1967 (Wisconsin)
DAVID J. HOLBROOK, JR. (1960), Associate Professor of Biochemistry and Nutrition and Pharmacology
B.S., 1955 (William and Mary); Ph.D., 1959 (North Carolina)
FRANK J. HOLLAND (1975), Adjunct Assistant Professor of Medical Allied Health Professions
A.B., 1949 (Catholic University); M.A., 1960, Ed.D., 1962 (George Washington)
WALTER HOLLANDER, JR. (1956), Associate Professor of Medicine
B.S., 1943 (Haverford); M.D., 1950 (Harvard)
WILLIAM HENRY HOLLINSHEAD (1971), Visiting Professor of Anatomy
B.A., 1926, M.S., 1927, Ph.D., 1932 (Vanderbilt)
WILLIAM GRAY HOLLISTER (1965), Professor of Psychiatry and Research Professor, Department of Health Administration, School of Public Health
A.B., 1937, B.S., 1940, M.D., 1941 (Nebraska); M.P.H., 1947 (Johns Hopkins)
WINDSOR A. HOLT (1975), Clinical Instructor in Obstetrics-Gynecology
B.A., 1960 (DePauw); M.D., 1964 (Case Western Reserve)
CHARLES WRIGHT HOOKER (1949), Professor of Anatomy
A.B., 1930, A.M., 1932, Ph.D., 1933 (Duke)
AXALLA J. HOOLE (1972), Assistant Professor of Medicine
B.A., 1960 (University of the South); M.D., 1964 (Medical College of South Carolina)
JENCEE HOPKINS (1973), Clinical Instructor in Physical Therapy
B.S., 1958 (Houston); Cert. in P.T., 1959 (Herman Hospital, School of Physical Therapy)
JAMES C. HOUK (1975), Adjunct Associate Professor of Physiology
B.S., 1961 (Michigan Tech); S.M., 1963 (M.I.T.); Ph.D., 1966 (Harvard)
FRANK M. HOUSTON (1975), Clinical Assistant Professor of Dermatology
B.S., 1960, M.D., 1964 (Louisiana State University)
BARRY R. HOWES (1971), Assistant Professor of Physical Therapy
B.S., 1967 (Washington University); M.S., 1971 (East Michigan University)
JOE W. HOWLAND (1975), Clinical Assistant Professor of Medicine
B.S., 1928 (Denision); M.Sc., 1929, Ph.D., 1931 (Ohio State); M.D., 1938 (Rochester)
MICHAEL B. HRESKO (1972), Clinical Assistant Professor of Psychiatry
B.A., 1956 (Lehigh); M.D., 1960 (Jefferson)

[26a]Leave of absence, January 1, 1976-July 1, 1976.
[27]Resigned March 31, 1973.

HENRY S. HSIAO (1972), Assistant Professor of Surgery
S.B.-E.E., 1965, S.M.-E.E., 1967 (Massachusetts Inst. of Tech.); Ph.D.-E.E., 1971 (California at Berkeley)
ENG-SHANG HUANG (1973), Assistant Professor of Medicine and Bacteriology
B.S., 1962, M.S. in P.H., 1964 (National Taiwan University)
WILLIAM COLVIN HUBBARD (1972), Clinical Assistant Professor of Pediatrics
B.A., 1962, M.D., 1966 (North Carolina)
RICHARD PAGE HUDSON, JR. (1968), Professor of Pathology
B.A., 1952 (University of Richmond); M.D., 1956 (Medical College of Virginia)
OLSON HUFF (1973), Clinical Assistant Professor of Pediatrics
B.A., 1957 (Kentucky); M.D., 1962 (Louisville)
WILLIAM DAVIS HUFFINES (1957), Professor of Pathology
B.S., 1951, M.D., 1955 (North Carolina)
TREVOR HUGHES (1973), Associate Professor of Anesthesiology
Hon.B.Sc., 1952, M.B., Ch.B., 1960 (Manchester, England)
BARBARA S. HULKA (1967), Associate Professor of Epidemiology in the School of Public Health and Assistant Professor of Family Medicine
B.A., 1952 (Radcliffe); M.S., 1954 (Juilliard); M.D., 1959, M.P.H., 1961 (Columbia)
JAROSLAV FABIAN HULKA (1966), Associate Professor of Obstetrics and Gynecology and Associate Professor of Maternal and Child Health in the School of Public Health
B.S., 1952 (Harvard); M.D., 1956 (Columbia College of Physicians and Surgeons)
OLIVER RAYMOND HUNT, JR. (1971), Clinical Assistant Professor of Surgery
A.B., 1947 (Berea); M.D., 1951 (Louisville)
VERNON B. HUNT (1975), Instructor in Medicine
B.A., 1967 (Pennsylvania State); M.D., 1971 (Pittsburgh); M.P.H., 1975 (North Carolina at Chapel Hill)
ROSEMARY S. HUNTER (1975), Instructor in Psychiatry and Pediatrics
A.B., 1963 (Wellesley); M.D., 1967 (University of Washington)
WILLIAM B. HUNTER (1974), Instructor in Psychiatry
B.A., 1963 (Harvard); M.D., 1968 (Washington)
HOWARD S. HUSSEY (1973), Clinical Assistant Professor of Family Medicine
B.A., 1938 (North Carolina); M.D., 1942 (Jefferson)
JAMES STANFORD HUTCHESON (1969), Lecturer in Biomedical Engineering in Departments of Psychiatry and Surgery
B.S.E.E., 1964 (North Carolina State)
[28]CLYDE A. HUTCHINSON (1968), Associate Professor of Bacteriology
B.S., 1960 (Yale); Ph.D., 1968 (California Institute of Technology)
DAVID L. INGRAM (1974), Assistant Professor of Pediatrics
A.B., 1960 (Harvard); M.D., 1967 (Yale)
GEORGE VERNON IRONS, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1952 (Howard College, Samford); M.D., 1956 (Alabama)
JOSEPH LOGAN IRVIN (1950), Kenan Professor of Biochemistry and Nutrition
B.S., 1934 (South Carolina); Ph.D., 1938 (Pennsylvania)
RAYMOND B. ISELY (1975), Lecturer in Pediatrics
A.B., 1957 (Baylor); M.D., 1961 (Washington University, St. Louis)
STEVEN J. JACOBS (1975), Clinical Assistant Professor of Medicine
M.D., 1968 (Boston University)
SAGAR C. JAIN (1974), Clinical Professor of Health Administration in the Department of Psychiatry
B.A., 1950, M.A., 1952 (Delhi University, India); M.S., 1960 (Illinois); Ph.D., 1964 (Cornell)
BARBARA E. JAMES (1972), Assistant Professor of Psychology in Psychiatry
B.A., 1961 (Winthrop); M.S., 1963, Ph.D., 1965 (Florida State University)

---

[28]Leave of absence, June 1, 1975-June 1, 1976.

ERIC CYRIL JELLY (1975), Visiting Assistant Professor of Family Medicine
M.C.B.S., 1955 (University of London); M.R.C.G.P., 1965 (Royal College of General Practice); D.R.C.O.G., 1975 (Royal College of Obstetrics and Gynecology)

ALBERT MILTON JENKINS (1966), Clinical Assistant Professor of Radiology
M.D., 1947 (Cincinnati)

ANDREW M. JOHNSON (1970), Assistant Professor of Pediatrics
A.B., 1955 (Ashbury College); M.D., 1959 (Vanderbilt)

ARCHIE T. JOHNSON, JR. (1973), Associate Professor of Family Medicine and Assistant Professor of Pediatrics (Part-time)
B.S., 1959 (Davidson); M.D., 1963 (Medical College of Virginia)

GEORGE JOHNSON, JR. (1959), Roscoe Bennett Gray Cowper Professor of Surgery
B.S., 1949 (North Carolina); M.D., 1952 (Cornell)

MAJORY WILSON JOHNSON (1961), Associate Professor of Physical Therapy
B.S., 1943 (North Carolina-Greensboro); Cert. P.T., 1944 (Walter Reed); M.A., 1964 (Stanford)

NANCY MARIMON JOHNSON (1967), Assistant Professor of Psychiatry and Assistant Professor in School of Education
B.A., 1956 (Occidental College); M.A., 1958, Ph.D., 1961 (North Carolina)

PHILIP T. JOHNSON (1973), Instructor in Laboratory Animal Medicine
D.V.M., 1967, M.S., 1969 (Ohio State University)

[29]RITA B. JOHNSON (1971), Associate Professor of Family Medicine
A.A., 1953, B.A., 1956, M.A., 1963, Ed.D., 1966 (UCLA)

[30]STUART R. JOHNSON (1971), Associate Professor of Psychiatry
B.A., 1950 (California); M.A., 1960 (San Jose State College); Ed.D., 1966 (UCLA)

RICHARD JOHNSTON (1973), Associate Professor of Radiology
B.S., 1956 (Akron); M.S., 1958, Ph.D., 1968 (Vanderbilt)

JAMES GRADY JONES (1973), Clinical Assistant Professor of Family Medicine
B.S., 1955 (Wake Forest); M.D., 1959 (Bowman Gray)

JOSEPH KEMPTON JONES (1952), Clinical Associate Professor of Family Medicine and Medicine
A.B., 1944, M.D., 1946 (Duke)

MORRIS ALEXANDER JONES, JR. (1962; 1965), Clinical Assistant Professor of Radiology
B.S., 1956, M.D., 1959 (North Carolina)

OTIS HUNTER JONES (1973), Clinical Associate Professor of Medicine
B.S., 1929, B.S. in Medicine, 1931 (Wake Forest); M.D., 1933 (Columbia)

WELDON HUSKE JORDAN (1957), Clinical Assistant Professor of Medicine
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)

SAMUEL B. JOYNER (1968), Clinical Associate Professor of Medicine
B.S., 1951 (Davidson); M.D., 1955 (North Carolina)

WILLIAM STAFFORD JOYNER (1955), Clinical Associate Professor of Family Medicine and Medicine
B.S., 1948 (Davidson); M.D., 1952 (Harvard)

ENID ROSEMARY KAFER (1973), Associate Professor of Anesthesiology and Physiology
B.Sc. (Med.), 1959, M.B.B.S., 1962 (University of Sydney); M.R.A.C.P., 1968 (Royal Australasian College of Physicians); M.D., 1970 (University of Sydney); F.R.A.R.C.S., 1971 (Royal College of Surgeons); F.R.A.C.P., 1974 (Royal Australasian College of Physicians)

ABRAM KANOF (1973), Clinical Professor of Pediatrics
M.D., 1929 (Long Island College Hospital)

---

[29]Resigned June 30, 1975.
[30]Resigned June 30, 1975.

ELIZABETH P. KANOF (1966), Clinical Associate Professor of Dermatology
B.A., 1956 (Mt. Holyoke); M.D., 1960 (New York University)
VINCENT R. KAVAL (1971), Instructor in Family Medicine
B.S., 1965 (Notre Dame); M.S., 1967 (John Carroll); M.B.A., 1969 (Chicago)
DAVID GORDON KAUFMAN (1975), Associate Professor of Pathology and Biochemistry and Nutrition
B.A., 1966 (Reed); M.D., 1968, Ph.D., 1973 (Washington University, St. Louis)
CORNELIUS TIMPSON KAYLOR (1947), Professor of Anatomy, Emeritus
A.B., 1931 (Wesleyan); M.S., 1933 (Rutgers); Ph.D., 1936 (Princeton)
KATHLEEN S. KEAGY (1973), Clinical Instructor in Pediatrics
B.S., 1966 (Michigan); M.D., 1970 (Pittsburgh)
JANICE G. KEENE (1971), Assistant Professor of Radiology
B.S., 1970 (St. Louis); M.S., 1971 (Cincinnati)
LUTHER W. KELLY, JR. (1965), Clinical Professor of Medicine
M.D., 1948 (Harvard)
RICHARD ALEXANDER KELLY (1968), Clinical Assistant Professor of Medicine
B.S., 1950 (Wake Forest); M.D., 1954 (Duke)
RICHARD STERLING KELLY, JR. (1957), Clinical Assistant Professor of Pediatrics
B.S., 1942 (Davidson); M.D., 1945 (Jefferson Medical College)
RICHARD LEON KENDRICK (1969), Clinical Assistant Professor of Medicine
A.B., 1942 (North Carolina); M.D., 1945 (Pennsylvania)
LOUIS TODD KERMON (1952), Clinical Associate Professor of Medicine
B.S., 1941 (Wake Forest); M.D., 1950 (Jefferson Medical College)
THOMAS CLEVELAND KERNS, JR. (1958), Clinical Assistant Professor of Ophthalmology
B.A., 1946 (North Carolina); M.D., 1950 (Duke)
ABRAHAM L. KIERSZENBAUM (1975), Assistant Professor of Anatomy
B.S., 1954 (National College); M.D., 1960; D.M.S., 1961 (University of Buenos Aires); Ph.D., 1975 (North Carolina at Chapel Hill)
GUSTIN THOMAS KIFFNEY, JR. (1959), Clinical Associate Professor of Ophthalmology
A.B., 1951 (Holy Cross); M.D., 1955 (Albany)
LAWRENCE M. KILLINGSWORTH (1973), Assistant Professor of Medicine and Pathology
B.S., 1968 (Emory); Ph.D., 1973 (Florida)
ODELL CULP KIMBRELL, JR. (1960), Clinical Associate Professor of Medicine
B.A., 1947 (Duke); M.D., 1951 (Pennsylvania)
GLENDALL L. KING (1969), Clinical Instructor in Surgery
B.S., 1947, Ph.D., 1949 (Illinois); M.D., 1955 (Washington University, St. Louis)
RICHARD AUSTIN KING (1968), Associate Professor of Physiology and Professor of Psychology
A.B., 1954, M.A., 1955 (Cincinnati); Ph.D., 1959 (Duke)
HENRY S. KINGDON (1972), Professor of Medicine, Biochemistry and Dentistry
B.S., 1956 (Oberlin); M.D., 1963, Ph.D., 1963 (Western Reserve)
JOHN ALVIN KIRKLAND (1958), Clinical Instructor in Obstetrics and Gynecology
B.S., 1948 (North Carolina); M.D., 1952 (Harvard)
HENRY NEIL KIRKMAN (1965), Professor of Pediatrics
B.S., 1947 (Georgia Institute of Technology); M.S., 1950 (Emory); M.D., 1952 (Johns Hopkins)
J. STEPHEN KIZER (1975), Assistant Professor of Clinical Pharmacology and Medicine
A.B., 1966 (Princeton); M.D., 1970 (Duke)
STANLEY G. KLEINER (1975), Adjunct Assistant Professor of Family Medicine
Dr. of Pharm., 1967 (California at San Francisco); M.P.H., 1968 (Harvard)
JOHN HENRY KNELSON (1969), Adjunct Associate Professor of Pediatrics
B.A., 1955 (Manchester College); M.D., 1960 (Northwestern); M.P.H., 1967 (Michigan)

F. X. CALVIN KNOBELOCH (1969), Clinical Associate Professor of Pediatrics
B.S., 1949 (Indiana); Ph.D., 1959 (Florida)
GARY G. KOCH (1967), Associate Professor of Surgery and Associate Professor of Biostatistics in the School of Public Health
B.S., 1962, M.S., 1963 (Ohio State); Ph.D., 1968 (North Carolina)
WILLIAM EDWARD KOCH (1968), Professor of Anatomy
A.B., 1956, A.M., 1959 (University of Pennsylvania); Ph.D., 1962 (Stanford University)
KARL A. KOEHLER (1973), Assistant Professor of Pathology and Biochemistry and Nutrition
B.S., 1966, Ph.D., 1969 (Indiana)
J. R. KOEWING (1975), Assistant Professor of Medical Allied Health Professions
B.A., 1962 (Trinity University); M.D.C., 1965, S.T.M., 1969 (McCormick Theological Seminary)
ESZTER B. KOKAS (1960), Adjunct Professor of Physiology
M.D., 1927 (University of Debrecen, Hungary)
CHOUDARI KOMMINENI (1974), Adjunct Assistant Professor of Pathology
D.U.M., 1962 (University of Madras, India); M.S., 1965 (Wisconsin); Ph.D., 1972 (Nebraska)
JUDY T. KONANC (1971), Assistant Professor of Psychiatry
B.A., 1962 (Occidental); Ph.D., 1971 (North Carolina)
HERVY B. KORNEGAY (1973), Clinical Assistant Professor of Family Medicine
B.S., 1954 (Wake Forest); M.D., 1957 (Bowman Gray)
GEORGE ELI KOURY (1960), Clinical Assistant Professor of Medicine
B.A., 1941 (North Carolina); M.D., 1944 (Tulane)
RICHARD JOHN KOWALSKY (1972), Assistant Professor of Radiology and Pharmaceutics in School of Pharmacy
B.S., 1966 (Connecticut); Pharm.D., 1972 (Kentucky)
NORMAN J. KRAMER (1975), Clinical Instructor in Medicine
A.B., 1959 (Holy Cross); M.D., 1965 (Jefferson Medical College)
ERNEST N. KRAYBILL (1972), Assistant Professor of Pediatrics and Obstetrics-Gynecology
B.S., 1958 (Eastern Mennonite College); M.D., 1962 (Pennsylvania)
MARTIN R. KRIGMAN (1966), Professor of Pathology
B.A., 1954 (Columbia College); M.D., 1958 (Cornell)
[31]THAMPU KUMARASAMY (1972), Assistant Professor of Obstetrics-Gynecology
M.B.B.S., 1958 (Ceylon); F.R.C.S., 1966 (Royal College of Surgeons, Edinburgh); M.R.C.P., 1967 (Royal College of Physicians, Edinburgh); M.R.C.O.G., 1967 (Royal College of Obstetrics-Gynecology, Great Britain)
KUZHIYETHU K. KUMAROO (1971), Research Assistant Professor of Biochemistry and Nutrition
Ph.D., 1969 (North Carolina)
MOTOY KUNO (1971), Professor of Physiology
M.D., 1954, Ph.D., 1960 (Kyoto University, Japan)
TED R. KUNSTLING (1975), Clinical Assistant Professor of Medicine
A.B., 1964, M.D., 1968 (Duke)
RONALD M. KUPPER (1974), Clinical Instructor in Surgery
B.S., 1963 (Notre Dame); M.D., 1969 (Kentucky)
WESTON LABARRE (1961), Clinical Professor of Anthropology in Psychiatry
A.B., 1933 (Princeton); Ph.D., 1937 (Yale)
BETH B. LAMBERT (1973), Clinical Instructor in Physical Therapy
B.S., 1970 (North Carolina at Chapel Hill)
EDWARD E. LANDIS (1970), Clinical Associate Professor of Medicine
B.A., 1958, M.D., 1962 (Louisville)

---

[31] Resigned September 30, 1975.

JAMES FRANKLIN LANE (1962), Adjunct Instructor in Hospital Administration
B.S., 1949 (North Carolina)
ROBERT DANA LANGDELL (1951), Professor of Pathology
M.D., 1948 (George Washington)
JAMES ELLIOTT THOMAS LANINGHAM (1970), Assistant Professor of Pathology
B.S., 1950 (VPI); D.V.M., 1954 (Texas A & M); M.D., 1966 (Medical College of Virginia); M.S., 1969 (Ohio State)
EDWIN R. LAPPI (1970), Lecturer in Surgery
B.S., 1964 (Missouri)
BENNETT W. LA PRADE (1964), Clinical Instructor in Obstetrics and Gynecology
B.A., 1952, M.D., 1956 (Virginia)
PATRICIO P. LARA (1975), Clinical Assistant Professor of Psychiatry
B.S., 1960 (Catholic University of Chile); M.D., 1963 (University of Chile)
RICHARD E. LASSITER (1971), Clinical Instructor in Obstetrics and Gynecology
B.S., 1962, M.D., 1965 (North Carolina)
WILLIAM EDMUND LASSITER (1960), Professor of Medicine
A.B., 1950, M.D., 1954 (Harvard)
STEPHEN LAWTON (1975), Adjunct Professor of Hospital Administration
B.A., 1964 (Oklahoma); J.D., 1967 (George Washington)
DOUGLAS M. LAY (1973), Assistant Professor of Anatomy
B.S., 1958 (Millsaps); M.S., 1962 (Louisiana State); Ph.D., 1968 (Chicago)
JAMES WILLIAM LEA (1973), Assistant Professor of Family Medicine
B.A., 1964, M.A., 1965 (Stetson); Ph.D., 1973 (North Carolina at Chapel Hill)
ARTHUR E. LEAKE, JR. (1972), Clinical Assistant Professor of Anesthesiology
B.S. in Medicine, 1963, M.D., 1966 (North Carolina)
DAVID J. LEANDER (1973), Assistant Professor of Pharmacology
B.A., 1966 (Pacific Lutheran); M.A., 1967 (Western Washington State College); Ph.D., 1971 (Florida)
EDMUND J. LeBAUER (1975), Clinical Assistant Professor of Medicine
M.D., 1960 (Duke)
EUGENE S. LeBAUER (1973), Clinical Assistant Professor of Medicine
B.A., 1960, M.D., 1965 (Duke)
SIDNEY F. LeBAUER (1968), Clinical Professor of Medicine
M.D., 1929 (University of Virginia)
GEORGE MARTIN LEIBY (1964), Clinical Associate Professor of Medicine and Clinical Assistant Professor of Family Medicine
B.S., 1929 (North Carolina); M.D., 1931 (Vanderbilt); M.P.H., 1934 (Harvard); Dr.P.H., 1938 (Johns Hopkins)
BARRY R. LENTZ (1975), Assistant Professor of Biochemistry and Nutrition
B.A., 1966 (Pennsylvania); Ph.D., 1973 (Cornell)
DONALD D. LEONARD (1968), Visiting Lecturer in Pathology and Clinical Assistant Professor of Pathology and Dermatology
B.S., 1952 (Akron); M.D., 1956 (Western Reserve)
KAYE R. LEONARD (1973), Clinical Instructor in Physical Therapy
B.S., 1963 (North Carolina)
MELODY LEONARD (1973), Clinical Instructor in Physical Therapy
B.S., 1969 (North Carolina)
WILLIAM A. LEONARD, JR. (1968), Clinical Associate Professor of Medicine
A.B., 1941 (Brown); M.D., 1944 (Tufts)
HENRY ROBY LESESNE (1973), Assistant Professor of Medicine
B.A., 1963, M.D., 1967 (Vanderbilt)
BARNEY F. LEVEAU (1972), Assistant Professor of Physical Therapy
B.S., 1961 (Colorado); R.P.T., 1965 (Mayo Clinic); M.S., 1966 (Colorado); Ph.D., 1972 (Pennsylvania State)
KENNETH J. LEVIN (1971), Associate Professor of Anesthesiology and Pediatrics
B.A., 1957 (Dartmouth); M.D., 1961 (Vermont)

RONALD H. LEVINE (1963), Clinical Assistant Professor of Pediatrics
B.S., 1955 (Union College); M.D., 1959 (Downstate Medical Center, New York)
PETER LEVITIN (1975), Assistant Professor of Medicine
B.A., 1965 (Franklin and Marshall); M.D., 1969 (Pennsylvania)
ARCH RITCHIE LEWIS (1971), Clinical Instructor in Medicine
B.S., 1962 (Carson-Newman); M.D., 1965 (Bowman Gray)
CLAUDELINE PULLEN LEWIS (1964), Assistant Professor of Clinical Social Work in Family Medicine and Assistant Professor of Psychiatry
A.B., 1939 (North Carolina at Greensboro); M.S.W., 1941 (Western Reserve)
MICHAEL W. LIEBERMAN (1974), Adjunct Associate Professor of Pathology
B.A., 1963 (Yale); M.D., Ph.D., 1972 (Pittsburgh)
SUSAN A. LIEBERMAN (1975), Adjunct Assistant Professor of Family Medicine
B.A., 1967 (Vassar); M.C.P., 1967, Ph.D., 1973 (Pittsburgh)
[32]GERALD K. LIMBER (1972), Assistant Professor of Pathology
B.S., 1963 (Grove City College); M.D., 1967 (Pittsburgh)
DIANNE LINDSAY (1972-74; 1975) Clinical Assistant Professor of Medical Allied Health Professions
B.S., 1965 (Kent State); Cert. in P.T., 1966 (Duke); M.P.H., 1975 (North Carolina at Chapel Hill)
ROBERT BOYD LINDSAY (1947), Clinical Assistant Professor of Family Medicine
B.S., 1936 (Davidson); M.D., 1940 (Jefferson Medical College)
HERMAN P. LINEBERGER (1967), Assistant Professor of Psychiatry
A.B., 1950 (Catawba); M.D., 1954 (North Carolina)
[33]GREGORY S. LIPTAK (1973), Instructor in Pediatrics (part-time)
M.D., 1971 (Duke)
BARBARA S. LIPTON (1961), Clinical Assistant Professor of Psychiatry
B.S., 1941 (Wisconsin); M.D., 1943 (Illinois)
MORRIS A. LIPTON (1959), Sarah Graham Kenan Professor of Psychiatry and Professor of Medicine and Biochemistry and Nutrition
B.S., 1935 (City College of New York); Ph.M., 1937, Ph.D., 1939 (Wisconsin); M.D., 1948 (Chicago)
MYRON B. LIPTZIN (1965), Assistant Professor of Psychiatry
A.B., 1955 (Columbia College); M.D., 1959 (University of Rochester)
FRANK A. LODA, JR. (1966), Associate Professor of Pediatrics and Family Medicine
A.B., 1956 (Harvard); M.D., 1960 (Vanderbilt)
ELMER A. LODMELL (1968), Clinical Associate Professor of Radiology
B.S., 1924 (North Dakota); M.D., 1926 (Minnesota)
PHILIP R. LOE (1972), Assistant Professor of Physiology
B.S., 1959, M.S., 1964 (Washington); Ph.D., 1969 (Maryland)
WALTER J. LOEHR (1972), Clinical Assistant Professor of Surgery
B.S., 1959 (Manhattan); M.D., 1963 (Cornell)
WILLIAM S. LOGAN (1974), Clinical Assistant Professor of Dermatology
B.S., 1964 (Davidson); M.D., 1968 (Duke)
LLOYD D. LOHR (1974), Clinical Instructor in Obstetrics-Gynecology
B.S., 1958, M.D., 1961 (North Carolina)
ARTHUR HILL LONDON, JR. (1937), Clinical Professor of Pediatrics
B.S., 1925 (North Carolina); M.D., 1927 (Pennsylvania)
WILLIAM LORD LONDON IV (1961), Clinical Assistant Professor of Pediatrics
B.S., 1952, M.D., 1955 (North Carolina)
CLYDE F. LONG (1968), Clinical Instructor in Hospital Administration and Psychiatry
A.B., 1937 (Eastern Kentucky University); M.B.A., 1955 (Indiana)

---

[32]Resigned June 30, 1975.
[33]Resigned June 30, 1975.

VIRGINIA B. LONG (1961), Assistant Professor of Family Medicine and Psychiatry
A.B., 1936 (Goucher); M.S., 1940 (Western Reserve)
NICHOLAS ARMISTEAD LOVE (1964), Clinical Assistant Professor of Medicine and Family Medicine
B.S., 1949 (North Carolina); M.D., 1952 (Virginia)
DONALD T. LUCEY (1973), Clinical Assistant Professor of Surgery
B.S., 1955 (Florida); M.D., 1963 (Duke)
HERBERT ZACHAREUS LUND (1952), Visiting Professor of Pathology and Clinical Professor of Dermatology and Medicine
A.B., 1928 (Utah); M.D., 1931 (Pennsylvania)
JOHN JEFFERSON LUND (1965), Clinical Instructor in Medicine
B.A., 1953 (Virginia Military Institute); M.D., 1957 (Virginia)
ROGER L. LUNDBLAD (1968), Associate Professor of Periodontics in the School of Dentistry and Associate Professor of Pathology and Biochemistry and Nutrition
B.S., 1961 (Pacific Lutheran); Ph.D., 1965 (Washington)
EMMETT S. LUPTON (1968), Clinical Associate Professor of Dermatology
B.S., 1936 (Wake Forest); M.D., 1938 (New York University)
JOHN A. LUSK III (1968), Clinical Professor of Medicine
B.S., 1943 (Davidson); M.D., 1951 (Medical College of Alabama)
CARL BLACKBURN LYLE, JR. (1962), Associate Professor of Medicine
A.B., 1953 (Princeton); M.D., 1957 (Columbia)
JOHN FRANKLIN LYNCH, JR. (1953), Clinical Associate Professor of Pediatrics
B.A., 1940 (North Carolina); M.D., 1944 (Jefferson Medical College)
BRUCE LYNN (1972), Adjunct Assistant Professor of Physiology
B.Sc., 1964, Ph.D., 1970 (University of London)
JAMES WILEY LYNN, JR. (1954), Clinical Assistant Professor of Pediatrics
M.D., 1946 (Tulane)
[34]THOMAS C. MacCAUGHELTY (1974), Instructor in Anesthesiology
B.A., 1965 (Duke); M.D., 1969 (North Carolina)
J. CALVIN MacKAY (1973), Clinical Associate Professor of Medicine
M.D., 1974 (Bowman Gray)
DANIEL ALLAN MacPHERSON (1923), Professor of Bacteriology, Emeritus
Ph.B., 1919, Sc.M., 1920 (Brown); Ph.D., 1929 (Chicago)
DONALD M. MacQUEEN (1974), Clinical Assistant Professor of Medicine
B.A., 1964 (Davidson); M.D., 1969 (North Carolina)
EDITH KRUGELIS MacRAE (1971), Professor of Anatomy
B.S., 1940 (Bates); M.S., 1941, Ph.D., 1946 (Columbia)
DONALD LEWIS MADISON (1969), Associate Professor of Family Medicine and Associate Professor of Health Administration, School of Public Health
B.Mus.Ed., 1958 (La Sierra College); M.D., 1965 (Loma Linda University)
JOHN E. MAINES (1974), Clinical Assistant Professor of Pharmacology
B.S., 1958 (Southern College); M.D., 1962, Ph.D., 1966 (Tulane)
GEORGE S. MALINDZAK (1973), Adjunct Associate Professor of Physiology and Surgery
A.B., 1956 (Western Reserve); M.Sc., 1958, Ph.D., 1961 (Ohio State University)
THOMAS R. MALONEY (1971), Clinical Associate Professor of Psychiatry
B.A., 1943 (Fordham); M.D., 1947 (New York University)
STANLEY ROBERT MANDEL (1969), Associate Professor of Surgery
B.A., 1958 (Columbia); M.D., 1962, M.S., 1966 (Virginia)
GEORGE PHILIP MANIRE (1950), Kenan Professor of Bacteriology
B.S., 1940, M.S., 1941 (North Texas State College); Ph.D., 1949 (California)
LEE M. MARCUS (1974), Assistant Professor of Psychiatry
B.A., 1967 (Pennsylvania); Ph.D., 1972 (Minnesota)
EDGAR S. MARKS (1968), Clinical Assistant Professor of Medicine
A.B., 1942 (Duke); M.D., 1945 (Bowman Gray)

---

[34]Resigned June 30, 1975.

ELISHA T. MARSHBURN, JR. (1975), Clinical Associate Professor of Medicine
M.D., 1947 (Bowman Gray)

PAUL L. MARTIN, JR. (1970), Assistant Professor of Psychology in Psychiatry
B.A., 1966 (Stetson); M.S., 1969, Ph.D., 1970 (Georgia)

[35]KEIJI MARUSHIGE (1970), Assistant Professor of Biochemistry and Nutrition
B.A., 1957, M.Sc., 1959, Ph.D., 1963 (Kyoto University, Japan)

LOCKERT MASON (1969), Associate Professor of Surgery
M.D., 1945 (Virginia)

[36]REGINALD G. MASON, JR. (1959), Professor of Pathology
B.S., 1957, M.D., 1962, Ph.D., 1964 (North Carolina)

THOMAS NEELEY MASSEY, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1951 (Presbyterian College); M.D., 1955 (Bowman Gray)

WILLIAM D. MATTERN (1973), Assistant Professor of Medicine
B.A., 1961 (Hamilton); M.D., 1965 (Columbia)

[36]H. ALLEN MATTHEWS, JR. (1973), Assistant Professor of Radiology
B.A., 1963, M.D., 1967 (Emory)

BETTY FULLER MAXWELL (1962), Instructor in Bacteriology
B.A., 1951 (North Carolina at Greensboro)

ROBERT A. MAXWELL (1973), Adjunct Professor of Pharmacology
B.A., 1951 (Syracuse); Ph.D., 1954 (Princeton)

HARVEY EDWARD MAYBERRY (1964), Assistant Professor of Anatomy
B.S., 1958 (Tennessee Polytechnic Institute); Ph.D., 1964 (Mississippi)

EUGENE S. MAYER (1971), Associate Professor of Family Medicine and Medicine
B.S., 1960 (Tufts); M.D., 1964 (Columbia); M.P.H., 1971 (Yale)

[37]NOEL ANDRE MAZADE (1972), Assistant Professor of Mental Health Program Administration in the Department of Psychiatry
B.A., 1966 (Wayne State University); M.S.W., 1968 (Michigan); M.S., 1971, Ph.D., 1972 (Pittsburgh)

HUGH A. McALLISTER, JR. (1975), Clinical Assistant Professor of Surgery
B.S., 1961 (Davidson); M.D., 1966 (North Carolina)

ARTHUR JOHN McBAY (1969), Professor of Pathology and Pharmacology
B.S., 1940, M.S., 1942 (Massachusetts); Ph.D., 1948 (Purdue)

JOHN L. McCAIN (1975), Clinical Associate Professor of Medicine
A.B., 1948 (North Carolina); M.D., 1952 (Virginia)

MARVIN M. McCALL III (1965), Clinical Professor of Medicine
M.D., 1956 (North Carolina)

LAWRENCE RAY McCARTHY (1974), Assistant Professor of Bacteriology and Immunology
B.A., 1966 (St. Anselm's College); Ph.D., 1971 (New Hampshire)

JAMES H. McCUTCHAN (1966), Clinical Assistant Professor of Medicine
A.B., 1957 (Princeton); M.D., 1961 (Johns Hopkins)

NOEL B. McDEVITT (1973), Assistant Professor of Surgery and Pathology
B.S., 1960 (Davidson); M.D., 1964 (North Carolina)

JAN McQUARE McDONAGH (1971), Assistant Professor of Pathology and Biochemistry and Nutrition
B.S., 1964 (Wake Forest); Ph.D., 1968 (North Carolina)

RICHARD P. McDONAGH, JR. (1971), Assistant Professor of Pathology and Physiology and Assistant Professor in Department of Epidemiology, School of Public Health
B.A., 1964 (California at Los Angeles); M.A., 1966 (California State College at Los Angeles); Ph.D., 1969 (North Carolina)

---

[35]Resigned July 31, 1975.
[36]Resigned June 30, 1975.
[37]Leave of absence, August 5, 1974-December 31, 1975.

MICHAEL R. McGINNIS (1975), Assistant Professor of Bacteriology and Immunology
B.S., 1966 (California State); Ph.D., 1969 (Iowa State)
DAVID L. McILWAIN (1972), Assistant Professor of Physiology
B.A., 1960 (Vanderbilt); M.D., 1964 (Washington University, St. Louis)
CLINTON HULL McKAY (1969), Clinical Assistant Professor of Medicine
M.D., 1939 (Tennessee); B.S., 1935 (Southwestern)
DAVID A. McKAY (1972), Assistant Professor of Medicine
B.S., 1961 (Allegheny College); M.D., 1965 (Harvard)
RODNEY LEONARD McKNIGHT (1970), Clinical Associate Professor of Anesthesiology
M.D., 1955 (North Carolina)
LAMBERT P. McLAURIN, JR. (1973), Assistant Professor of Medicine
B.A., 1962, M.D., 1967 (Florida)
WILLIAM W. McLENDON (1958; 1963; 1968), Professor of Pathology
A.B., 1953, M.D., 1956 (North Carolina))
MALCOLM McLEOD (1973), Clinical Assistant Professor of Psychiatry
A.B., 1960, M.D., 1965 (North Carolina)
MARY MARGARET McLEOD (1953), Clinical Instructor in Pediatrics
B.S., 1932 (North Carolina); M.D., 1935 (Vanderbilt)
CAMPBELL WHITE McMILLAN (1962), Professor of Pediatrics
B.S., 1948 (Wake Forest); M.D., 1952 (Bowman Gray)
DONALD E. McMILLAN (1969), Associate Professor of Pharmacology and Clinical Associate Professor of Psychiatry in Department of Psychology
B.S., 1959 (Grove City College); M.S., 1962, Ph.D., 1965 (Pittsburgh)
THOMAS HENRY McMILLAN, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1950, M.D., 1953 (Emory)
SAMUEL DACE McPHERSON, JR. (1952), Clinical Professor of Ophthalmology
A.B., 1940 (North Carolina); M.D., 1943 (Johns Hopkins)
MARVIN E. McRAE (1970), Clinical Associate Professor of Dermatology
B.S., 1930 (Richmond); M.D., 1938 (Medical College of Virginia)
CHRISTINE J. McREE (1975), Clinical Assistant Professor of Psychiatry
B.A., 1933 (Erskine); M.D., 1946 (Tulane)
JEAN DOUGLAS McREE (1975), Clinical Associate Professor of Psychiatry
M.D., 1946 (Tennessee)
GERALD L. MECHANIC (1968), Professor of Biochemistry and Nutrition and Professor of Dental Science in the School of Dentistry
B.S., 1951 (City College of New York); M.S., 1953, Ph.D., 1958 (New York University)
SHARON KAY MEGINNIS (1972), Clinical Instructor in Psychiatry
B.A., 1965 (Miami, Ohio); M.Ed., 1972 (Georgia)
GERHARD W. D. MEISSNER (1974), Assistant Professor of Biochemistry and Nutrition and Physiology
B.S., 1958 (University of Hamburg, Germany); B.S., 1961, M.S., 1963 (Free University, Berlin); Ph.D., 1965 (Technical University, Berlin)
NANETTE MENGEL (1974), Lecturer in Psychiatry
B.A., 1956 (Vassar); Ed.M., 1957 (Harvard); M.A., 1968, Ph.D., 1973 (California at Berkeley)
JACK P. MERCER (1971), Associate Professor of Obstetrics and Gynecology
M.D., 1948 (Western Reserve)
[38]JAMES A. MERCHANT (1973), Assistant Professor of Medicine
B.S., 1962 (Iowa State); M.D., 1966 (Iowa)
CHARLOTTE DAVIS MERRITT (1957; 1966), Instructor in Medical Technology
A.B., 1941 (Notre Dame)

[38]Resigned June 30, 1975.

CHARLES RICHARD MERWARTH (1971), Clinical Associate Professor of Medicine
M.D., 1955 (Duke)

GARY B. MESIBOV (1975), Assistant Professor of Psychiatry
A.B., 1967 (Stanford); M.A., 1968 (Michigan); Ph.D., 1974 (Brandeis)

THOMAS M. METTEE (1976), Instructor in Family Medicine
A.B., 1963 (Middlebury); M.D., 1968 (Rochester)

DAVID D. METZ (1974), Assistant Professor of Hospital Administration
B.S., 1960 (Long Island University); B.A., 1968 (Queens College of City University of New York); M.P.A., 1973 (New York University)

GEORGE W. MEYER (1958), Clinical Instructor in Ophthalmology
B.A., 1942 (North Carolina); M.D., 1951 (Duke)

WILLIAM N. MICHAL, JR. (1965), Clinical Instructor in Pediatrics
B.S., 1957, M.D., 1960 (North Carolina)

AUGUSTUS TAYLOR MILLER, JR. (1939), Professor of Physiology
B.S., 1931, M.S., 1933 (Emory); Ph.D., 1939 (Michigan); M.D., 1953 (Duke)

C. ARDEN MILLER (1967), Professor of Pediatrics (part-time)
M.D., 1948 (Yale)

FRANCIS T. MILLER (1967), Associate Professor of Psychology in Psychiatry and Clinical Associate Professor of Psychology
B.S., 1958, M.A., 1960 (South Carolina); Ph.D., 1963 (Houston)

GEORGE R. MILLER (1969), Clinical Assistant Professor of Surgery
A.B., 1941, M.D., 1943 (University of Rochester, New York)

HORACE WILLIAM MILLER, JR. (1958), Clinical Assistant Professor of Medicine
B.S., 1947 (Wake Forest); M.D., 1951 (Bowman Gray)

MILTON L. MILLER (1959), Professor of Psychiatry (part-time)
A.B., 1925, M.D., 1929 (Harvard)

ORLANDO PHIL MILLER (1969), Clinical Assistant Professor of Surgery (Orthopedics)
B.A., 1955 (Yale); M.D., 1959 (Columbia)

PHILLIP R. MILLER (1975), Clinical Assistant Professor of Medicine
B.S., 1963 (North Carolina State); M.D., 1967 (Bowman Gray)

WILLIAM S. MILLER (1973), Clinical Assistant Professor of Dermatology
A.B., 1957, M.D., 1961 (North Carolina)

KENNETH C. MILLS (1973), Assistant Professor of Psychiatry
B.A., 1966, M.A., 1967 (California at Long Beach); Ph.D., 1970 (Claremont Graduate School)

DAVID KENT MILLWARD (1969), Clinical Assistant Professor of Medicine
B.A., 1961 (Tufts); M.D., 1965 (George Washington)

BLAN V. MINTON (1969), Assistant Professor of Social Work in Family Medicine
B.A., 1962 (Wake Forest); M.S.W., 1966 (North Carolina)

RICHARD D. MIREL (1974), Clinical Instructor in Medicine
B.A., 1968 (Columbia); M.D., 1972 (Pennsylvania)

DONALD K. MITCHELL (1975), Assistant Professor of Medical Allied Health Professions
B.S., 1969 (Ohio State); M.Ed., 1970 (Bowling Green); Ph.D., 1975 (Pennsylvania State)

GORDON N. MITCHELL (1973), Instructor in Biochemistry and Nutrition
B.S., 1963 (Davidson); Ph.D., 1972 (North Carolina at Chapel Hill)

RUTH U. MITCHELL (1975), Professor of Medical Allied Health Professions (Physical Therapy)
B.S., 1954 (St. Louis); M.A., 1961 (Western Reserve); Ph.D., 1970 (Case Western Reserve)

[39]YUHEI MIYATA (1973), Visiting Instructor in Physiology
Doctor of Medicine, 1969 (The Ministry of Welfare of Japan); Doctor of Medical Science, 1973 (Faculty of Medicine, Tokyo Medical and Dental University)

[39]Resigned May 31, 1975.

JOHN T. MONROE, JR. (1973), Clinical Associate Professor of Psychiatry
B.S., 1951 (Davidson); M.D., 1955 (North Carolina)

DONALD M. MONSON (1963), Clinical Associate Professor of Radiology
B.S., 1952, M.D., 1955 (Wisconsin)

GUSTAVO S. MONTANA (1970), Professor of Radiology and Associate Professor of Obstetrics and Gynecology
Baccalaureate, 1953 (Colegio Nacional Sn. Bartolome); M.D., 1960 (National University)

ROYCE LEE MONTGOMERY (1965), Associate Professor of Anatomy
B.A., 1955 (Virginia); M.S., 1960, Ph.D., 1963 (West Virginia)

HORACE G. MOORE, JR. (1970), Clinical Associate Professor of Surgery
A.B., 1942, M.D., 1945 (Johns Hopkins)

JOHN A. MOORE (1968), Clinical Assistant Professor of Medicine
A.B., 1944 (Hampden-Sydney College); M.D., 1948 (Medical College of Virginia)

LAWRENCE W. MOORE, JR. (1969), Clinical Associate Professor of Ophthalmology
B.S., 1959 (Virginia Polytechnical Institute); M.D., 1963 (Duke)

MARGARET LEE MOORE (1957), Professor of Physical Therapy and Assistant Professor of Public Health Administration
B.S., 1942 (Madison); Cert. P.T., 1943 (Walter Reed); M.S., 1948 (Medical College of Virginia); Ed.D., 1971 (Duke)

PIERRE MORELL (1973), Associate Professor of Biochemistry and Nutrition
A.B., 1963 (Columbia); Ph.D., 1968 (Albert Einstein)

JENNIFER WRIGHT MORGAN (1974), Lecturer in Psychiatry
B.A., 1967 (Columbia); M.S., 1968 (Tennessee); Ed.D., 1973 (Duke)

CHARLES ELLIOT MORRIS (1961), Associate Professor of Neurology and Medicine
B.A., 1950, M.A., 1951 (University of Denver); M.D., 1955 (Colorado)

CHARLES RICHARD MORRIS (1971), Assistant Professor of Pediatrics
B.S., 1958, M.D., 1962 (Baylor)

GEORGE THOMAS ARNOLD MORRIS (1967), Clinical Instructor in Medicine
B.S., 1955 (Wake Forest); M.D., 1959 (Bowman Gray)

JAMES FRANCIS MORRIS (1957), Clinical Instructor in Pediatrics
B.S., 1949 (North Carolina); M.D., 1952 (Louisville)

NAOMI M. MORRIS (1963), Professor of Maternal and Child Health in the School of Public Health and Clinical Associate Professor of Pediatrics
B.A., 1952, M.D., 1955 (Colorado); M.P.H., 1959 (Harvard)

HUGH MAXWELL MORRISON (1964), Clinical Instructor in Opthalmology
B.S., 1953 (Davidson); M.D., 1957 (North Carolina)

SARAH TAYLOR MORROW (1969), Clinical Associate Professor of Pediatrics
B.S., 1942 (North Carolina); M.D., 1944 (Maryland); M.P.H., 1960 (North Carolina)

ROBERT A. MUELLER (1970), Professor of Anesthesiology and Associate Professor of Pharmacology
B.S., 1960, M.S., 1963 (Wisconsin); M.D., 1965, Ph.D., 1966 (Minnesota)

ROBERT SYLVESTER MUNGER, JR. (1971), Clinical Instructor in Medicine
B.A., 1964 (Haverford); M.S., 1966 (M.I.T.); M.D., 1970 (Case Western Reserve)

JOHN FRANCIS MUNROE (1967), Clinical Assistant Professor of Medicine
B.S., 1957, M.D., 1960 (North Carolina)

PAUL LEWIS MUNSON (1965), Sarah Graham Kenan Professor of Pharmacology and Endocrinology
B.A., 1933 (Antioch College); M.A., 1937 (Wisconsin); Ph.D., 1942 (Chicago); M.A. (Hon.), 1955 (Harvard)

ROBERT J. MURPHY (1973), Clinical Assistant Professor of Family Medicine
B.S., 1936 (Middle Tennessee State); M.D., 1940 (Vanderbilt)

THOMAS LYNCH MURPHY (1959), Clinical Associate Professor of Medicine
A.B., 1940 (North Carolina); M.D., 1943 (Harvard)

GORDON F. MURRAY (1972), Associate Professor of Surgery
M.D., 1963 (Michigan)
RILLA A. MURRAY (1974), Clinical Instructor in Obstetrics and Gynecology
B.A., 1966 (Michigan State); M.S., 1968 (Case Western Reserve)
KEITH R. MURRIN (1974), Visiting Assistant Professor of Anesthesiology
M.B., B.CH., 1967, F.F.A.R.C.S., 1971 (Welsh National School of Medicine)
PAUL MUSHAK (1971), Assistant Professor of Pathology
B.S., 1961 (Scranton); Ph.D., 1970 (Florida)
FRANCES BANDY MUTH (1966), Instructor in Clinical Social Work in Family Medicine
A.B., 1946 (Meredith); M.S.W., 1964 (North Carolina)
RICHARD S. MYERS (1975), Clinical Instructor in Surgery
B.A., 1961 (Vanderbilt); M.D., 1965 (Washington University, St. Louis)
DONALD C. NAGEL (1975), Assistant Professor of Family Medicine
B.A., 1960 (Northwestern); M.Div., 1963 (Duke); M.D., 1972 (North Carolina)
ARNOLD S. NASH (1972), Adjunct Professor of Epistemology in Pathology
B.Sc., 1927, B.Sc., Hons., 1928, M.Sc., 1930, M.A., 1933 (University of Liverpool); M.Sc., Econ., 1937 (London School of Economics, University of London)
[40]SHIHADEH NAYFEH (1968), Associate Professor of Biochemistry and Nutrition and Pediatrics
B.S., 1959, M.S., 1961 (American University of Beirut); Ph.D., 1964 (North Carolina)
KENNETH A. NAYLOR (1974), Clinical Instructor in Pediatrics
B.Ch.B., 1950 (University of Leeds Medical School, England)
WILLIAM ARTHUR NEBEL (1969), Clinical Instructor in Obstetrics and Gynecology
A.B., 1958, M.D., 1962 (North Carolina)
ERNEST ROBERT NEELEY (1966), Clinical Assistant Professor of Pediatrics
M.D., 1959 (Tennessee)
VIRGINIA J. NEELON (1974), Assistant Professor of Nursing and Physiology
B.S.N., 1957 (Duke); M.S.N., 1961 (California); Ph.D., 1972 (Duke)
MARGARET A. NELSEN (1975), Assistant Professor of Surgery
B.A., 1965, M.D., 1969 (George Washington)
CHARLENE M. NELSON (1961), Associate Professor of Physical Therapy
B.S., 1951 (William and Mary); Cert. P.T., 1951 (Medical College of Virginia); M.A., 1964 (Duke)
PAUL NELSON (1975), Adjunct Professor of Hospital Administration
B.B.A., 1951, M.B.A., 1955, Ph.D., 1956 (Oklahoma)
ROBERT B. NELSON (1974), Clinical Instructor in Surgery
B.S., 1962 (DePauw); M.D., 1965 (Northwestern)
WILLIAM MICHAEL STEPHEN NESBIT (1970), Clinical Assistant Professor of Medicine
A.B., 1958, M.D., 1962 (Virginia)
JOHN E. NEWBOLD (1971), Assistant Professor of Bacteriology
B.S., 1962 (Birmingham); Ph.D., 1970 (California Institute of Technology)
CHARLES S. NEWMARK (1971), Assistant Professor of Psychology in Psychiatry
B.A., 1966 (Westminster College); Ph.D., 1970 (Alabama)
JAMES FREDERICK NEWSOME (1956), Professor of Surgery
A.B., 1944 (North Carolina); M.D., 1949 (Vanderbilt)
ROBERT LEO NEY (1967), Professor of Medicine and Physiology
A.B., 1954 (Harvard); M.D., 1958 (Cornell)
CHARLES A. NICHOL (1973), Adjunct Professor of Pharmacology
B.S., 1944 (Toronto, Canada); M.S., 1946 (McGill, Canada); Ph.D., 1949 (Wisconsin)

[40] Kenan leave of absence, September 1, 1975-August 31, 1976.

THOMAS R. NICHOLS (1973), Clinical Associate Professor of Family Medicine
B.A., 1926 (Washington and Lee); M.D., 1930 (Rochester)
MARIANNA NICHOLSON (1964), Instructor in Clinical Social Work in Family Medicine
A.B., 1937 (Duke); M.S., 1960 (North Carolina)
WILLIAM P. NIXON, JR. (1975), Clinical Assistant Professor of Medicine
B.S., 1964 (Atlantic Christian); M.D., 1968 (Medical College of Virginia)
JOHN NOBLE (1973), Associate Professor of Medicine and Family Medicine
A.B., 1959 (Harvard); M.D., 1963 (Columbia)
THOMAS BRENDAN NOLAN (1967), Clinical Assistant Professor of Pediatrics
B.S., 1952 (Loyola); M.D., 1960 (Virginia)
WAYKIN NOPANITAYA (1972), Assistant Professor of Pathology
Dip. in Med. Tech., 1963 (University of Medical Sciences, Thailand); M.A., 1969, Ph.D., 1971 (North Carolina at Chapel Hill)
[41]GUNNAR F. NORDBERG (1974), Visiting Associate Professor of Pathology
Bach. of Med., 1962 , Dr. of Med., disertation, 1972 (Karolinska Institute)
EDWARD A. NORFLEET (1973), Assistant Professor of Anesthesiology
A.B., 1965, M.D., 1970 (North Carolina at Chapel Hill)
CLAUDE T. NUZUM (1975), Associate Professor of Medicine
A.B., 1959 (Harvard); B.A., 1961 (Cambridge); M.D., 1964 (Harvard); M.A., 1965 (Cambridge)
PAUL R. O'BAR (1970), Clinical Associate Professor of Medicine
B.S., 1954, M.D., 1957 (Oklahoma)
PAUL A. OBRIST (1960), Professor of Psychology and Professor of Psychology in Psychiatry
B.S., 1953 (Cornell); Ph.D., 1958 (Rochester)
[42]VINCENT J. O'DONNEL (1973), Visiting Professor of Pharmacology
B.Sc., 1951, Ph.D., 1954 (McGill)
FERNANDO V. ONA (1973), Clinical Assistant Professor of Medicine
A.A., 1962, M.D., 1967 (Santo Tomas, Manila)
DAVID A. ONTJES (1969), Associate Professor of Medicine and Pharmacology
B.A., 1959 (Kansas); M.A., 1961 (Oxford); M.D., 1964 (Harvard)
ROY C. ORLANDO (1975), Assistant Professor of Medicine
B.S., 1964 (Queens College, N.Y.); M.D., 1968 (Georgetown)
JAMES R. O'ROURKE, JR. (1973), Clinical Assistant Professor of Medicine
B.S., 1961, M.D., 1966 (Kentucky)
EUGENE P. ORRINGER (1974), Assistant Professor of Medicine
B.A., 1965 (Michigan); M.D., 1969 (Pittsburgh)
JAMES WILLIAM OSBERG (1968), Clinical Associate Professor of Psychiatry
M.D., 1948 (Tufts)
EDWARD ODELL OSWALD (1969), Adjunct Assistant Professor of Biochemistry and Nutrition
B.S., 1961 (Newberry College); M.S., 1963 (Bowman Gray); Ph.D., 1966 (North Carolina)
LORCAN A. O'TUAMA (1971), Associate Professor of Neurology and Medicine and Assistant Professor of Pediatrics and Pharmacology
M.B., B.Ch., B.A.O., 1962 (University College, Ireland)
JOHN ARTHUR PAAR (1970), Clinical Associate Professor of Medicine
B.A., 1957 (Duke); M.D., 1960 (University of Pittsburgh)
JOHN W. PACKER (1972), Clinical Assistant Professor of Orthopaedic Surgery
B.S., 1961 (Davidson); M.D., 1965 (Bowman Gray)
GEORGE M. PADDISON (1973), Clinical Assistant Professor of Radiology
B.A., 1962, M.D., 1966 (North Carolina)

---

[41]Resigned August 19, 1975.
[42]Resigned February 28, 1974.

JOSEPH STEPHEN PAGANO (1965), Professor of Medicine and Bacteriology
A.B., 1953 (Rochester); M.D., 1957 (Yale)
ERNEST B. PAGE (1971), Clinical Associate Professor of Medicine
M.D., 1949 (Duke)
RAYMOND LEE PAINE (1970), Assistant Professor of Psychiatry
B.A., 1958, M.D., 1964 (University of Michigan)
JEANNE A. PALMER (1975), Adjunct Assistant Professor of Medical Allied Health Professions
B.S., 1950 (Northwestern); M.H.P., 1960 (North Carolina)
JEFFRESS GARY PALMER (1952), Professor of Medicine
B.S., 1942, M.D., 1944 (Emory)
JAMES CLIFTON PARKE, JR. (1964), Clinical Associate Professor of Pediatrics
A.B., 1949, M.D., 1954 (North Carolina)
FRED PARKER (1965), Adjunct Instructor in Hospital Administration
A.B., 1958 (North Carolina)
JOHN CURTIS PARKER (1967), Professor of Medicine and Biochemistry and Nutrition
M.D., 1961 (Yale)
MABEL MARIE PARKER (1958), Associate Professor of Physical Therapy
B.S., 1939 (Western Michigan); M.A., 1940 (Michigan); Cert. P.T., 1946 (Duke)
SAMUEL L. PARKER, JR. (1956), Clinical Assistant Professor of Obstetrics and Gynecology
A.B., 1938 (North Carolina); M.D., 1942 (George Washington)
CAROL ANN PARR (1970), Assistant Professor of Physical Therapy
B.S., 1959 (Ohio University); M.S., 1969 (Boston University)
FRANCES PASCHER (1973), Clinical Professor of Dermatology
M.D., 1928 (Long Island Medical College)
FRED GEER PATTERSON (1941), Clinical Associate Professor of Family Medicine and Medicine
A.B., 1933 (North Carolina); M.D., 1937 (Pennsylvania)
HUBERT CLIFTON PATTERSON, JR. (1950), Associate Professor of Surgery
A.B., 1933 (Duke); M.D., 1937 (Harvard)
JOSEPH FLANNER PATTERSON, JR. (1966), Associate Professor of Anesthesiology
A.B., 1938 (North Carolina); M.D., 1942 (Harvard)
JOHN A. PAYNE (1968), Assistant Professor of Family Medicine and Public Health Administration in the School of Public Health
A.B., 1967, M.P.H., 1968 (North Carolina)
ROBERT B. PAYNE (1965), Clinical Associate Professor of Medicine
M.D., 1960 (North Carolina)
ROY PEACH (1968), Associate Professor of Anatomy and Associate Professor of Endodontics in the School of Dentistry
B.S., 1956, M.S., 1957, Ph.D., 1960 (Manchester University, England)
JACK B. PEACOCK (1975), Assistant Professor of Surgery
B.A., 1960 (Duke); M.D., 1964 (North Carolina)
WILLIAM H. PEARLMAN (1969), Professor of Pharmacology
B.S., 1934 (Brooklyn College); Ph.D., 1940 (Columbia)
TAI-CHAN PENG (1965), Associate Professor of Pharmacology
M.D., 1959 (University of Geneva, Switzerland)
RALPH PENNIALL (1958), Professor of Biochemistry and Nutrition
B.A., 1947 (Knox College); M.S., 1950, Ph.D., 1953 (Iowa)
FRANK B. PENTA (1975), Adjunct Associate Professor of Medical Allied Health Professions
B.A., 1964 (Northeastern); M.S., 1968, Ed.D., 1972 (Northern Illinois)
MARIO PEREZ-REYES (1961), Associate Professor of Psychiatry
B.S., 1945 (Colegio Frances Morelos); M.D., 1952 (National University of Mexico)

EDWARD ROY PERL (1971), Professor of Physiology
B.S., 1947, M.D., 1949, M.S., 1951 (Illinois)
JOSEPH H. PERLMUTT (1953), Professor of Physiology
B.S., 1939 (College of Charleston); M.A., 1942 (North Carolina); Ph.D., 1949 (Princeton)
THOMAS S. PERRIN, JR. (1965), Clinical Associate Professor of Medicine
M.D., 1943 (Johns Hopkins)
PETER PETRUSZ (1971), Assistant Professor of Anatomy
M.D., 1963 (Medical University, Pecs, Hungary)
DONALD M. PETT (1974), Research Assistant Professor of Biochemistry and Nutrition
A.B., 1965 (Princeton); Ph.D., 1970 (University of Pennsylvania)
HARRY T. PHILLIPS (1970), Professor of Health Administration in the School of Public Health and Professor of Family Medicine
M.B., Ch.B., 1935, D.P.H., 1953, M.D., 1956 (University of Capetown, South Africa)
WILLIAM A. PHILLIPS (1973), Clinical Assistant Professor of Dermatology
A.B., 1943, B.S., 1945 (West Virginia); M.D., 1947 (Jefferson Medical College)
GUY PHOTOPULOS (1975), Assistant Professor of Obstetrics and Gynecology
B.A., 1963, M.D., 1967 (Illinois)
CLAUDE PIANTADOSI (1963), Professor of Pharmacy and Biochemistry and Nutrition
B.S., 1949 (Brooklyn College); M.S., 1952 (Columbia); Ph.D., 1956 (North Carolina)
JAMES R. PICK, JR. (1965), Associate Professor of Comparative Pathology
D.V.M., 1961 (Georgia)
CARL GLENN PICKARD, JR. (1967), Associate Professor of Medicine and Family Medicine
B.A., 1958, M.D., 1962 (North Carolina)
GEORGE H. PIERSON (1971), Clinical Assistant Professor of Radiology
B.A., 1950 (Washington and Lee); M.D., 1954 (Duke)
WILLIAM C. PIERSON, JR. (1973), Clinical Assistant Professor of Medicine
A.B., 1962, M.D., 1966 (Duke)
RUSSEL L. PIMMEL (1975), Associate Professor of Medicine
B.S., 1963 (St. Louis); M.S., 1968, Ph.D., 1969 (Iowa)
ROLFFS STEUART PINKERTON (1968), Assistant Professor of Psychology in Psychiatry
B.S., 1962, M.S., 1964, Ph.D., 1967 (Georgia)
SIDNEY J. PION (1973), Assistant Professor of Radiology
B.S., 1963 (City College of New York); M.D., 1967 (Albert Einstein)
HOUSTON HARRIS PITTMAN (1975), Instructor in Surgery (Neurosurgery)
B.S., 1966, M.D., 1969 (North Carolina)
MORTON ELI PIZER (1955), Clinical Associate Professor of Pediatrics
M.D., 1947 (Louisville)
JAMES W. PLONK (1975), Clinical Instructor in Medicine
B.A., 1964, M.D., 1968 (Duke)
CRANFORD O. PLYLER, JR. (1973), Clinical Assistant Professor of Family Medicine
B.S., 1948 (High Point College); M.D., 1953 (George Washington)
WILLIAM SPROTT POLLITZER (1957), Professor of Anatomy
A.B., 1944, M.A., 1947 (Emory); Ph.D., 1957 (Columbia)
DORIS THEODORE POOLE (1962), Associate Professor of Pharmacology
B.S., 1944 (Winthrop); Ph.D., 1962 (North Carolina)
WILLIAM G. PORTER (1970), Clinical Associate Professor of Medicine
B.S., 1959 (Presbyterian College); M.D., 1963 (Medical College of South Carolina)
GLENN E. POTTER (1974), Adjunct Instructor in Hospital Administration
B.A., 1965 (Ottawa University, Kansas); M.H.A., 1972 (Washington University)

DON W. POWELL (1971), Associate Professor of Medicine
B.S., 1960 (Auburn); M.D., 1963 (Alabama)
DWIGHT A. POWELL (1975), Assistant Professor of Pediatrics
B.A., 1965, M.D., 1969 (Illinois)
WILLIAM CARLYLE POWELL (1957), Clinical Instructor in Pediatrics
A.B., 1948 (North Carolina); M.D., 1952 (Bowman Gray)
ARTHUR JERGEN PRANGE, JR. (1957), Professor of Psychiatry
B.S., 1947, M.D., 1950 (Michigan)
SAMUEL B. PRATT (1974), Clinical Instructor in Dermatology
M.D., 1966 (Medical College of South Carolina)
JIRI PRAZMA (1969), Assistant Professor of Surgery
M.D., 1960 (Charles University, Prague, Czechoslovakia)
EDWIN THORNTON PRESTON (1969), Associate Professor of Surgery (Orthopedics)
M.D., 1960 (Duke)
ETHERIDGE PRICE (1971), Lecturer in Family Medicine
ROBERT E. PRICE, JR. (1972), Clinical Assistant Professor of Surgery
B.A., 1959, M.D., 1964 (North Carolina at Chapel Hill)
NEWTON G. PRITCHETT (1971), Clinical Associate Professor of Medicine
D.C.M., 1942 (Dalhousie University, Canada)
HERBERT JENNINGS PROCTOR (1969), Associate Professor of Surgery
A.B., 1958 (Princeton); M.D., 1967 (New York University)
WILLIAM IVAN PROCTER (1963), Clinical Associate Professor of Medicine
M.D., 1957 (Duke)
EARL DELOSS PROVANCHA (1969), Lecturer in Family Medicine (part-time)
B.A., 1958 (Florida State); M.A., 1965 (George Washington)
ROSE PULLY (1973), Clinical Assistant Professor of Family Medicine
B.A., 1940 (North Carolina at Greensboro); M.D., 1952 (Pennsylvania)
SAMUEL M. PUTNAM (1970), Assistant Professor of Medicine and Assistant Professor of Family Medicine (Community Medicine) and Epidemiology
A.B., 1960, M.D., 1964, M.P.H., 1970 (Harvard)
LEONARD J. RABOLD (1968), Clinical Professor of Medicine
B.S., 1937 (Western Kentucky State); M.D., 1941 (Vanderbilt)
DAVID D. RAFT (1967), Assistant Professor of Psychiatry and Medicine
B.A., 1953, B.S., 1954, M.D., 1958 (Nebraska)
DAVID PLATT RALL (1972), Adjunct Professor of Pharmacology
B.A., 1946 (North Central College); M.S., 1948, Ph.D., 1951, M.D., 1951 (Northwestern)
WARREN K. RAMP (1971), Assistant Professor of Pharmacology (part-time) and Assistant Professor of Dentistry
B.S., 1963 (State University of New York); M.S., 1964 (Colorado State); Ph.D., 1967 (Kentucky)
RANMOHAN V. RANADIVE (1973), Adjunct Associate Professor of Family Medicine
MBBS, 1961 (Seth G.S. Medical School, Bombay, India); M.I.H., 1968, M.P.H., 1969 (Harvard)
DAVID L. RANEY (1968), Lecturer and Director of Medical Television, Division of Medical Science Teaching Laboratories
B.A., 1964 (North Carolina)
RICHARD BEVERLEY RANEY (1944), Professor of Surgery (Orthopedics) (part-time)
A.B., 1926 (North Carolina); M.D., 1930 (Harvard)
RUFUS PINKNEY RANKIN, JR. (1969), Clinical Associate Professor of Obstetrics and Gynecology
M.D., 1952 (Pennsylvania)
EDWIN ALBERT RASBERRY, JR. (1954), Clinical Professor of Medicine
A.B., 1937 (North Carolina); M.D., 1941 (Pennsylvania)

SAMUEL DUBOSE RAVENEL (1971), Clinical Assistant Professor of Pediatrics
B.A., 1960, M.D., 1964 (Duke)
SAMUEL FITSIMONS RAVENEL (1954), Clinical Professor of Pediatrics
B.A., 1918 (North Carolina); M.D., 1923 (Johns Hopkins)
STEPHEN REDMAN (1974), Visiting Professor of Physiology
B.E., 1960, M.D., 1960 (New South Wales University, Australia); Ph.D., 1967 (Monash University, Australia)
JAMES C. REED (1975), Associate Professor of Radiology
B.S., 1964 (Florida Southern); M.D., 1968 (University of Miami)
SANDAR J. REGENIE (1974), Clinical Assistant Professor of Obstetrics-Gynecology
B.S.N., 1961 (North Carolina); C.N.M., 1967 (Downstate Medical Center, New York); M.S.N., 1969 (Yale)
DONALD BAUMANN REIBEL (1965), Clinical Assistant Professor of Surgery (Orthopedics)
B.A., 1950, M.D., 1957 (Indiana)
ROBERT JAY REICHLER (1969), Associate Professor of Psychiatry
B.A., B.S., 1957 (Chicago); M.D., 1961 (Albert Einstein College of Medicine)
RICHARD A. REID (1973), Assistant Professor of Medicine
B.S., 1962 (Purdue); M.D., 1966 (Indiana)
JEAN R. REINER (1972), Assistant Professor of Physical Therapy
B.A., 1968 (Queens College of City University of New York); M.S., 1971 (Case Western Reserve)
JAMES F. REINHARDT (1968), Clinical Assistant Professor of Radiology
B.S., 1938 (Davidson); M.D., 1942 (Duke)
HOWARD M. REISNER (1974), Instructor in Pathology and Bacteriology
B.S., 1967 (City College of New York); Ph.D., 1973 (Case Western Reserve)
[43]RONALD C. REITZ (1969), Assistant Professor of Biochemistry and Nutrition
B.S., 1961 (Texas A & M); Ph.D., 1966 (Tulane)
MICHAEL PAUL REMLER (1969), Associate Professor of Neurology, Medicine and Assistant Professor of Anatomy
B.S., 1961 (M.I.T.); M.D., 1965 (Tufts)
SANDRA M. RENWICK (1975), Lecturer in Medical Allied Health Professions
B.S., 1957 (Johnson Smith University)
MIKLOS RETHELYI (1974), Visiting Associate Professor of Physiology
M.D., 1963 (Pecs Medical University, Hungary)
LUIS REUSS (1975), Assistant Professor of Medicine
B.A., 1957, M.D., 1974 (University of Chile)
CECIL DAVID RHODES, JR. (1964), Clinical Instructor in Medicine
B.S., 1952 (Davidson); M.D., 1956 (Bowman Gray)
JOHN FLINT RHODES (1970), Clinical Assistant Professor of Surgery
B.S., 1959, M.D., 1962 (North Carolina)
JOHN SLOAN RHODES (1963), Clinical Professor of Surgery (Urology)
A.B., 1925 (North Carolina); M.D., 1929 (Harvard)
WILLIAM PERRY RICHARDSON (1952), Professor of Family Medicine (part-time)
A.B., 1926 (Wake Forest); M.D., 1928 (Medical College of Virginia); M.P.H., 1933 (Johns Hopkins)
GILBERT FLETCHER RIEMAN (1972), Assistant Professor of Obstetrics and Gynecology
B.A., 1948, M.D., 1952 (Virginia)
MARY VIRGINIA RIGSBEE (1964), Instructor in Clinical Social Work in Family Medicine
A.B., 1948 (North Carolina at Greensboro); M.S.W., 1956 (Tulane)
BOBBY A. RIMER (1973), Clinical Associate Professor of Obstetrics-Gynecology
B.A., 1953, M.D., 1957 (North Carolina)

---

[43]Resigned July 1, 1975.

HAROLD ROSS ROBERTS (1961), Professor of Medicine and Pathology
B.S., 1952, M.D., 1955 (North Carolina)
ELIZABETH O. ROBERTSON (1970), Adjunct Assistant Professor of Surgery
B.A., 1964 (Southwestern Louisiana); M.A., 1966 (Louisiana State)
WILLIAM ADLAI ROBIE (1965), Clinical Assistant Professor of Pediatrics
M.D., 1942 (George Washington University)
JAMES H. ROBINSON (1970), Clinical Assistant Professor of Anesthesiology
B.S., 1957 (Davidson); M.D., 1961 (North Carolina)
NORMAN J. ROBINSON (1973), Clinical Assistant Professor of Medicine
B.A., 1959 (West Virginia); M.D., 1963 (Duke)
MARY M. ROGAN (1973), Instructor in Family Medicine and Pediatrics
A.B., 1965 (Queens College); M.S.W., 1970 (Tulane)
JOHN F. ROGERS (1975), Assistant Professor of Medicine and Pharmacology
B.A., 1963 (Johns Hopkins); M.D., 1967 (Maryland)
EDWARD E. ROGOFF (1974), Assistant Professor of Radiology
B.S., 1964 (Rhode Island); M.D., 1968 (SUNY-Downstate Medical School)
[44]ELLIS LAWRENCE ROLETT (1963), Professor of Medicine and Physiology
B.S., 1952 (Yale); M.D., 1955 (Harvard)
ROBERT LEROY ROLLINS (1968), Clinical Associate Professor of Psychiatry
A.B., 1952 (North Carolina); M.D., 1956 (Duke)
MARY MUNCH ROOD (1975), Clinical Assistant Professor of Psychiatry
B.S., 1969 (Rollins); Ph.D., 1975 (Chicago)
JAMES A. ROSEBORO (1975), Adjunct Assistant Professor of Radiology
Sc.B., 1965 (Johnson C. Smith); Sc.M., 1968 (Johns Hopkins); Ph.D., 1974 (California at Los Angeles)
RICHARD J. ROSEN (1968), Clinical Assistant Professor of Medicine
M.D., 1955 (George Washington)
M. H. ROSS (1975), Adjunct Professor of Family Medicine
LL.B., 1952 (North Carolina)
DONALD KENT ROUTH (1971), Associate Professor of Psychiatry
B.A., 1962 (Oklahoma); M.S., 1965, Ph.D., 1967 (Pittsburgh)
WADSWORTH D. ROY III (1973), Clinical Instructor in Physical Therapy
B.S., 1967 (Pennsylvania State); Cert. in P.T., 1968 (Duke)
BILLY W. ROYAL (1973), Clinical Assistant Professor of Psychiatry
B.S., 1949 (Wake Forest); M.D., 1958 (Bowman Gray)
CHAUNCEY LAKE ROYSTER (1952), Clinical Professor of Medicine
A.B., 1931 (North Carolina); M.D., 1935 (Cornell)
ADRIAN S. RUBIN (1968), Clinical Associate Professor of Pediatrics
B.A., 1933 (Cornell); M.D., 1937 (New York University)
MAURICE H. RUBIN (1955), Clinical Assistant Professor of Ophthalmology
M.D., 1948 (Long Island College of Medicine)
JOHN WILLIAM RUMPP (1972), Instructor in Bacteriology and Immunology
B.A., 1963 (St. John's College); M.S., 1970 (North Carolina at Chapel Hill)
MERRELL P. RUNQUIST (1972), Clinical Assistant Professor of Psychiatry
B.S., 1968 (Wisconsin State); A.P.A., 1971 (North Carolina at Chapel Hill)
CARL ROBERT RUPPENTHAL, JR. (1969), Clinical Associate Professor of Medicine
A.B., 1956 (Haverford College); M.D., 1960 (Pennsylvania)
JEROME RUSKIN (1970), Clinical Assistant Professor of Medicine
B.S., 1956 (Wisconsin); M.D., 1960 (Albert Einstein College of Medicine)
LYNETTE K. RUSSELL (1975), Clinical Instructor in Obstetrics and Gynecology and Instructor in Nursing
B.A., 1959 (Phillips); B.S., 1961 (Kansas); M.S., 1973 (Columbia)
WILLIAM MICHAEL RUSSELL (1975), Visiting Instructor of Radiology
M.B., M.A., 1970 (Trinity College-England)

---

[44]Absent on leave, June 1, 1974-June 30, 1976.

ALDO RUSTIONI (1973), Associate Professor of Anatomy
M.D., 1965 (Milan Medical School, Italy)
[45]SABIHA R. SABA (1973), Instructor in Pathology
M.D., 1963 (Darbhanga Medical School, Bihar University, India)
ROBERT SAKATA (1975), Associate Professor of Medical Allied Health Professions
B.A., 1960 (California); M.A., 1963 (California State); Ph.D., 1970 (Kent State)
KAMAL B. SALAMEH (1968), Clinical Instructor in Pediatrics
B.A., 1950, M.D., 1955 (American University of Beirut, Lebanon)
[46]BETTY J. SANDERS (1967), Assistant Professor of Physical Therapy
B.A., 1949 (Oklahoma College for Women); Cert. P.T., 1950 (Hermann Hospital, Houston, Texas); M.A., 1956 (Stanford)
SHIRLEY SANDERS (1968), Assistant Professor of Psychology in Psychiatry and Clinical Assistant Professor of Psychology
A.B., 1963 (Miami); M.A., 1965, Ph.D., 1967 (Kentucky)
OSCAR LEMAY SAPP III (1960), Professor of Medicine
M.D., 1947 (Bowman Gray)
FELIX A. SARUBBI, JR. (1974), Assistant Professor of Medicine
B.S., 1965 (Manhattan College); M.D., 1969 (New York University)
JOHN SAVORY (1972), Associate Professor of Medicine and Biochemistry and Nutrition and Pathology
B.Sc., 1958, Ph.D., 1961 (University of Durham, England)
JOHN W. SAWYER (1968), Clinical Assistant Professor of Medicine
B.S., 1949 (North Carolina); M.D., 1952 (Western Reserve)
WILLIAM L. SAYLOR (1970), Assistant Professor of Radiology and Adjunct Assistant Professor of Environmental Engineering, School of Public Health
M.S., 1962 (Johns Hopkins)
JOAN M. SCAGNELLI (1971), Assistant Professor of Psychology in Psychiatry
B.S., 1955 (Cornell); MAT, 1968 (Duke); Ph.D., 1971 (North Carolina)
JAMES H. SCATLIFF (1966), Professor of Radiology
B.S., 1949, M.D., 1952 (Northwestern)
ROBERT SHACKELFORD (1973), Clinical Assistant Professor of Family Medicine
B.S., 1945 (Wake Forest); M.D., 1947 (Bowman Gray)
MORRIS SCHAEFER (1974), Clinical Professor of Health Administration, Department of Psychiatry
B.S., 1943 (New Jersey State College of Trenton); M.A., 1951 (New School for Social Research); Ph.D., 1962 (Syracuse)
STEWART ALLAN SCHALL (1972), Assistant Professor of Pediatrics
B.A., 1960 (Rutgers); M.D., 1964 (Pennsylvania)
HERMAN MAX SCHIEBEL (1953), Clinical Professor of Surgery
A.B., 1929, M.D., 1933 (Johns Hopkins)
GUY WALTER SCHLASEMAN (1962), Clinical Assistant Professor of Radiology
M.D., 1946 (Duke)
DAVID D. SCHMIDT (1975), Assistant Professor of Family Medicine
A.B., 1961, B.M.S., 1962 (Dartmouth); M.D., 1964 (Harvard)
RAYMOND F. SCHMITT, JR. (1969), Assistant Professor of Psychiatry and Pediatrics
B.S., 1956 (Loyola); M.D., 1959 (Louisiana State)
HOWARD A. SCHNEIDER (1970), Professor of Biochemistry and Nutrition
B.S., 1934, M.S., 1936, Ph.D., 1938 (Wisconsin)
ERIC SCHOPLER (1964), Professor of Psychology in Psychiatry and Associate Professor of Psychiatry
A.B., 1949, M.A., 1955, Ph.D., 1964 (Chicago)
CAROLYN A.S. SCHROEDER (1968), Assistant Professor of Psychology in Psychiatry
A.B., 1961 (Thiel College); M.S., 1963, Ph.D., 1966 (University of Pittsburgh)

---

[45]Resigned July 15, 1975.
[46]Resigned August 17, 1975.

STEPHEN R. SCHROEDER (1972), Clinical Associate Professor of Psychology in Psychiatry
B.S., 1958 (Josephinum); M.A., 1964 (Toledo, Ohio); Ph.D., 1967 (Pittsburgh)
CHARLES P. SCHUCH (1968), Assistant Professor of Physical Therapy
B.S., 1949 (New York State University at Cortland); M.S., 1952 (University of Pennsylvania); Cert. P.T., 1950 (Stanford University)
MORTON D. SCHUMANN (1972), Clinical Assistant Professor of Social Work in Psychiatry
B.A., 1947, M.S.W., 1951 (West Virginia)
[47]JOHN HARRIS SCHWAB (1953), Professor of Bacteriology and Immunology
B.S., 1949, M.S., 1950, Ph.D., 1953 (Minnesota)
JAMES E. SCHWANKL (1973), Instructor in Pediatrics
B.S., 1965 (St. John's); M.D., 1969 (Minnesota)
ROBERT P. SCHWARTZ (1974), Clinical Assistant Professor of Pediatrics
B.S., 1964, M.D., 1968 (Florida)
HARRY W. SCOTT (1973), Clinical Assistant Professor of Dermatology
B.S., 1959, M.D., 1962 (North Carolina)
PETER V. SCOTT (1972), Associate Professor of Anesthesiology
M.A., 1961 (University of London); M.B., B. Chir., 1961, F.F.A.R.C.S., 1969 (University College Hospital Medical School)
SAMUEL E. SCOTT (1974), Clinical Instructor in Medicine
B.A., 1959, M.D., 1963 (North Carolina)
ROBERT W. SEALOCK (1975), Assistant Professor of Physiology
B.S., 1966 (Iowa State); Ph.D., 1972 (Purdue)
LOUIS PHILLIP SEMRAU (1972), Assistant Professor of Psychology in Psychiatry
B.S., 1961 (State University of New York at Buffalo); M.A., 1965 (George Peabody); Ph.D., 1972 (Oregon)
ROBERT JOSEPH SENIOR (1959), Clinical Associate Professor of Pediatrics
B.S., 1949 (Franklin and Marshall); M.D., 1955 (Jefferson Medical College)
RICHARD G. SENTER (1973), Clinical Assistant Professor of Medicine
B.S., 1962, B.A., 1962 (Carson-Newman College); M.D., 1966 (Johns Hopkins)
JOHN TURNER SESSIONS, JR. (1952), Professor of Medicine
B.S., 1943, M.D., 1945 (Emory)
ROBERT E. SEVIER (1974), Clinical Assistant Professor of Medicine
A.B., 1962, M.D., 1966 (North Carolina)
ROBERT SHACKELFORD (1973), Clinical Assistant Professor of Family Medicine
B.S., 1945 (Wake Forest); M.D., 1947 (Bowman-Gray)
RAMESH M. SHAH (1975), Instructor in Obstetrics-Gynecology
Faculty of Science, 1958, Faculty in Medicine, 1963, M.D., 1967 (M.S. University, Baroda, India)
EDWARD J. SHAHADY (1976), Professor of Family Medicine
B.S., 1960 (Wheeling College); M.D., 1964 (West Virginia)
DAVID GORDON SHARP (1957), Professor of Bacteriology and Immunology
B.S., 1932 (Rutgers); M.A., 1937, Ph.D., 1939 (Duke)
MARTHA KORNEGAY SHARPLESS (1966), Associate Professor of Pediatrics
A.B., 1955 (Duke); M.D., 1959 (North Carolina)
JOYCE C. SHAVER (1975), Clinical Assistant Professor of Medicine
A.B., 1953, M.D., 1962 (Cornell)
FRANK S. SHAW (1965), Clinical Assistant Professor of Pediatrics
B.S., 1955 (Davidson); M.D., 1959 (Pennsylvania)
CHARLES I. SCHEAFFER (1961), Clinical Associate Professor of Pediatrics
B.S., 1950 (Butler); M.A., 1954, M.D., 1958 (Virginia)
PALMER AUGUSTINE SHELBURNE (1968), Clinical Professor of Medicine, Emeritus
A.B., 1923 (Lynchburgh); M.D., 1927 (Medical College of Virginia)

[47]Leave of absence, August 1, 1975-August 1, 1976.

PALMER FRIEND SHELBURNE (1968), Clinical Associate Professor of Medicine
B.S., 1951 (Davidson); M.D., 1955 (North Carolina)
[48]LINUS LIANG-NENE SHEN (1972), Research Assistant Professor of Biochemistry and Nutrition
B.S., 1964 (National Taiwan University)
CECIL GEORGE SHEPS (1968), Professor of Social Medicine in the Department of Family Medicine
M.D., 1936 (University of Manitoba); M.P.H., 1947 (Yale)
[49]RICHARD WAYNE SHERMER (1969), Assistant Professor of Pathology
A.B., 1957, M.D., 1963 (North Carolina)
JOHN FRANKLIN SHERRILL, JR. (1962), Clinical Associate Professor of Radiology
B.S., 1945 (Wake Forest); M.D., 1946 (Bowman Gray)
WILLIAM F. SHUFORD (1973), Clinical Associate Professor of Medicine
B.A., 1957, M.D., 1961 (North Carolina)
KIRKWOOD T. SHULTZ (1973), Clinical Assistant Professor of Medicine
M.D., 1965 (Duke)
ELIZABETH SHUTE (1975), Lecturer in Pediatrics
B.S., 1970 (Massachusetts)
EVIN HENDERSON SIDES III (1968; 1971), Associate Professor of Medicine
B.S., 1958 (Wake Forest); M.D., 1965 (North Carolina)
EARL SIEGEL (1964), Clinical Associate Professor of Pediatrics
B.S., 1944 (Pittsburgh); M.D., 1948 (New York Medical College); M.P.H., 1961 (California)
DAVID W. SILLMON (1971), Clinical Assistant Professor of Medicine
B.S., 1959, M.D., 1963 (North Carolina)
MYRON S. SILVERMAN (1970), Professor of Dentistry and Professor of Medicine (Bacteriology)
B.S., 1937, M.S., 1938 (Cornell); Ph.D., 1950 (University of California)
LOUIS GORDON SINCLAIR (1961), Clinical Assistant Professor of Surgery
B.A., 1929, B.S., 1931 (Wake Forest); M.D., 1933 (Pennsylvania)
JAMES W. SINGER (1968), Clinical Assistant Professor of Pediatrics
B.A., 1957 (Wooster); M.D., 1961 (Ohio State)
WILLIAM VANCE SINGLETARY (1952; 1965), Clinical Assistant Professor of Medicine
A.B., 1940 (North Carolina); M.D., 1943 (Duke)
MARY CLYDE SINGLETON (1961), Professor of Physical Therapy and Associate Professor of Anatomy
B.S., 1932 (North Carolina at Greensboro); Cert. P.T., 1934 (Washington); M.A., 1960, Ph.D., 1964 (Duke)
JERRY SLOAN (1973), Adjunct Assistant Professor of Psychology in Psychiatry
B.A., 1967 (Anderson); M.A., 1970, Ph.D., 1971 (Emory)
ERNEST W. SMALL (1973), Professor of Surgery and Professor of Oral Surgery, School of Dentistry
B.A., 1943, D.D.S., 1945 (Minnesota); M.S., 1970 (Old Dominion)
TIMOTHY HARVEY SMELZER (1969), Clinical Assistant Professor of Medicine
A.B., 1958 (Hamilton College); M.D., 1962 (Columbia)
CHARLES E. SMITH (1967), Professor of Psychiatry
A.B., 1939, M.D., 1941 (George Washington)
DAVID M. SMITH (1974), Lecturer in Physiology
M.S.E.E., 1968 (North Carolina State)
DONALD D. SMITH (1968), Clinical Assistant Professor of Pediatrics
A.B., 1956, M.D., 1960 (Duke)

---

[48]Resigned August 31, 1975.
[49]Leave of absence, July 1, 1975-June 30, 1976.

HAROLD C. SMITH (1967), Lecturer in Surgery and Biochemistry and Nutrition
B.S., 1960 (Georgia Southern College); Ph.D., 1964 (North Carolina)
HARVEY L. SMITH (1957), Professor of Medical Sociology (Family Medicine) and Clinical Professor of Sociology in Psychiatry
B.A., 1941, M.A., 1947, Ph.D., 1949 (Chicago)
O. NORRIS SMITH (1968), Clinical Professor of Medicine
A.B., 1929 (Washington and Lee); M.D., 1933 (Pennsylvania)
PHILIP P. SMITH (1975), Clinical Assistant Professor of Medicine
B.S., 1958, M.D., 1962 (Illinois)
[50]ROBERT SMITH (1968), Professor of Family Medicine and Associate Professor of Medicine and Associate Professor of Health Administration
B.A., 1944, M.B., B.Ch., B.A.O., 1945, M.A., 1954, M.D., 1956 (Dublin University)
ROGER E. SMITH (1973), Clinical Assistant Professor of Medicine
B.A., 1960 (Monmouth); M.D., 1964 (Illinois)
JAMES W. SNYDER (1974), Clinical Assistant Professor of Medicine
A.B., 1965, M.D., 1969 (North Carolina)
MARK D. SOBSEY (1974), Assistant Professor of Bacteriology and Immunology and Environmental Science and Engineering
B.A., 1965, M.S., 1967 (Pittsburgh); Ph.D., 1971 (California at Berkeley)
JOHN J. SOLTYS, JR. (1975), Associate Professor of Psychiatry
B.S., 1953 (Massachusetts); M.D., 1959 (Harvard)
JAMES E. SOMERS (1973), Clinical Associate Professor of Psychiatry
A.B., 1949 (North Carolina); M.D., 1953 (Duke)
JOHN MITCHELL SORROW, JR. (1954), Professor of Medicine
B.S., 1943 (North Carolina); M.D., 1946 (Pennsylvania)
ROBERT S. SPAIN (1965), Clinical Associate Professor of Medicine
B.S., 1944 (North Carolina); M.D., 1946 (Washington)
ERNEST B. SPANGLER, JR. (1962), Clinical Associate Professor of Radiology
B.S., 1948 (Davidson); M.D., 1952 (Pennsylvania)
HAROLD B. SPANGLER (1968), Clinical Assistant Professor of Pediatrics
B.S., 1945 (Wake Forest); M.D., 1948 (Bowman Gray)
PHILIP FREDERICK SPARLING (1969), Associate Professor of Medicine and Bacteriology
A.B., 1958 (Princeton); M.D., 1962 (Harvard)
HARRY W. SPARROW (1968), Clinical Assistant Professor of Medicine
B.S., 1941 (North Carolina); M.D., 1944 (North Carolina and Northwestern)
ROGER F. SPENCER (1963), Associate Professor of Psychiatry
B.A., 1956 (Yale); M.D., 1959 (Harvard)
ANNE M. SPITZNAGEL (1973), Instructor in Psychiatry
B.A., 1944 (Barnard); B.S. in Nursing, 1947 (Columbia); M.A., 1948 (George Washington)
JOHN KEITH SPITZNAGEL (1957), Professor of Bacteriology and Medicine
B.A., 1943, M.D., 1946 (Columbia)
JOEL F. SPRAGINS (1973), Clinical Assistant Professor of Medicine
B.A., 1960, M.D., 1964 (Arkansas)
WILLIAM HUTCHINSON SPRUNT III (1952), Clinical Associate Professor of Radiology
B.S., 1942 (Davidson); M.D., 1945 (Harvard)
EDWARD V. STAAB (1973), Professor of Radiology and Pathology
B.S., 1957, M.D., 1961, M.S., 1966 (Minnesota)

---

[50]Resigned June 30, 1975. Appointed Adjunct Professor of Family Medicine, July 1, 1975.

BRIAN STABLER (1973), Assistant Professor of Psychiatry, Pediatrics and Family Medicine
B.A., 1967 (Bede College, University of Durham, England); M.Ed., 1968, Ph.D., 1971 (North Carolina at Chapel Hill)

DARRELL W. STAFFORD (1969), Assistant Professor of Biochemistry and Nutrition (part-time) and Associate Professor of Zoology
B.A., 1959 (Southwest Missouri State College); Ph.D., 1964 (University of Miami)

TALBERT LACY STALLINGS, JR. (1961), Clinical Assistant Professor of Surgery
A.B., 1950, M.D., 1954 (Duke)

W. RANEY STANFORD (1934), Clinical Associate Professor of Medicine, Emeritus
A.B., 1915 (North Carolina); M.D., 1919 (Pennsylvania)

LEE O. STANG (1971; 1974), Assistant Professor of Physical Therapy
B.S., 1959 (Massachusetts); Cert. in P.T., 1960 (Columbia); M.P.H., 1971 (North Carolina)

MICHAEL W. STANNARD (1974), Visiting Assistant Professor of Radiology
B.Sc., 1963, M.B.B.S., 1966 (London Hospital Medical College)

ROBERT E. STAPLES (1974), Adjunct Associate Professor of Pharmacology
B.S., 1954, M.D., 1956 (Saskatchewan, Canada); Ph.D., 1961 (Cornell)

PETER J. STAREK (1971), Associate Professor of Surgery
B.A., 1959 (Wooster); M.D., 1964 (Ohio State)

CHARLES F. STARMER, JR. (1966-72; 1975), Adjunct Associate Professor of Surgery
B.S., 1963, M.D., 1965 (Duke)

BERNARD E. STATLAND (1975), Associate Professor of Pathology
B.A., 1963, M.D., 1968, Ph.D., 1969 (Minnesota)

LINDA G. STAUROVSKY (1971), Instructor in Obstetrics and Gynecology and Assistant Professor, School of Nursing
B.S., 1963 (Connecticut); M.N., 1967 (Emory); C.N.M., 1968 (New York Medical College)

RUSH BARRETT STEELMAN (1971), Clinical Assistant Professor of Medicine
B.A., 1958 (Arizona); M.D., 1963 (Hahnemann Medical College)

R. BRUCE STEINBACH (1972), Clinical Instructor in Anesthesiology
A.A., 1971 (Washtenaw Community College)

ALTON L. STEINER (1973), Associate Professor of Medicine and Pharmacology
A.B., 1958 (Harvard); M.D., 1962 (Columbia)

JOANNE K. STEPHAN (1975), Associate Professor of Medical Allied Health Professions (Medical Technology)
B.S., 1951 (St. Mary of the Woods); M.T.[ASCP], (Norton Memorial Infirmary); M.S., 1965 (Louisville); Sc.D., 1971 (Johns Hopkins)

ELLIOT W. STEVENS (1973), Clinical Assistant Professor of Medicine
B.A., 1962, M.D., 1966 (North Carolina)

JOSEPH B. STEVENS (1968), Clinical Professor of Medicine
M.D., 1936 (Duke)

PETER SHALDON STEVENS (1975), Assistant Professor of Surgery
M.D., 1967 (Emory)

ALBERT STEWART, JR. (1957), Clinical Associate Professor of Medicine
B.A., 1941 (North Carolina); M.D., 1944 (Washington)

MICHAEL L. STEWART (1974), Visiting Instructor in Radiology[51]
B.S., 1965 (University of Texas at Arlington); M.D., 1969 (University of Texas at Galveston)

JOSEPH W. STIEFEL (1968), Clinical Assistant Professor of Medicine
B.A., 1955, M.D., 1958 (Tennessee)

EDDIE P. STILES (1975), Clinical Instructor in Family Medicine
B.S., 1957 (Lenoir-Rhyne); M.S., 1960, M.D., 1963 (North Carolina)

---

[51] Resigned September 30, 1975.

WILLIAM R. STOKELY (1973), Clinical Instructor in Physical Therapy
B.S., 1967 (North Carolina at Chapel Hill)
ROBERT D. STONE (1974), Assistant Professor of Family Medicine
B.A., 1967 (Denison); M.A., 1968, Ph.D., 1974 (Michigan)
BETSY J. STOVER (1970), Associate Professor of Pharmacology
B.A., 1947 (Utah); Ph.D., 1950 (University of California)
WILLIAM RINGGOLD STRAUGHN, JR. (1944), Professor of Bacteriology and Immunology
B.S., 1935 (Pennsylvania State Teachers); M.S., 1940 (Cornell); Ph.D., 1958 (Pennsylvania)
FRANK THOMAS STRITTER (1971), Associate Professor of Family Medicine and Health Education
B.A., 1959 (St. Lawrence); M.A., 1961 (Colgate); Ph.D., 1968 (Syracuse)
CAROLE MAXWELL STUART (1971), Instructor in Pediatrics (part-time)
B.A., 1964 (Reed College); M.D., 1966 (Oregon)
WALTER E. STUMPF (1970), Professor of Anatomy and Pharmacology
M.D., 1952 (Humboldt University, Berlin); Ph.D., 1967 (Chicago)
[52]RICK I. SUBERMAN (1974), Assistant Professor of Radiology
B.S., 1966, M.D., 1970 (North Carolina)
WILLIAM CASWELL SUGG, JR. (1969), Clinical Associate Professor of Medicine
B.S., 1957 (Auburn); M.D., 1961 (Emory)
KENNETH SUGIOKA (1954), Professor of Anesthesiology
B.S., 1946 (University of Denver); M.D., 1949 (Washington University)
MARGUERITE SEWALD SULLIVAN (1971), Clinical Assistant Professor of Ophthalmology
B.A., 1968 (Mills)
WILLIAM G. SULLIVAN (1973), Clinical Assistant Professor of Surgery
B.S., 1956 (Detroit); M.S., 1960 (Stritch School of Medicine, Loyola)
GEORGE KENDRICK SUMMER (1957), Professor of Biochemistry and Nutrition and Clinical Associate Professor of Pediatrics
B.S., 1944 (North Carolina); M.D., 1951 (Harvard)
ARTHUR R. SUMMERLIN (1965), Clinical Instructor in Obstetrics and Gynecology
B.S., 1945 (North Carolina); M.D., 1948 (Virginia)
FRED SUMMERS, JR. (1966), Assistant Professor of Obstetrics and Gynecology
A.B., 1955 (Davidson); M.D., 1963 (North Carolina)
ROBERT H. SVENSON (1975), Clinical Instructor in Family Medicine
B.A., 1963 (Lawrence University); M.D., 1969 (Chicago)
MARGARET CATHERINE SWANTON (1948), Professor of Pathology
B.A., 1943 (North Carolina); M.D., 1946 (Johns Hopkins)
MICHAEL R. SWIFT (1972), Associate Professor of Medicine
B.A., 1955 (Swarthmore); M.A., 1957 (California at Berkeley); M.D., 1962 (New York University)
[53]CHARLES NASH SWISHER (1972), Assistant Professor of Pediatrics and Medicine
B.A., 1961 (Harvard); M.D., 1965 (McGill, Canada)
BOYD R. SWITZER (1972), Assistant Professor of Biochemistry and Nutrition and Assistant Professor of Nutrition in School of Public Health
B.A., 1965 (Bridgewater); Ph.D., 1971 (North Carolina at Chapel Hill)
TIMOTHY NED TAFT (1974), Assistant Professor of Surgery
B.A., 1964 (Princeton); M.D., 1969 (Missouri)
LUTHER MARCUS TALBERT (1958), Professor of Obstetrics and Gynecology
B.A., 1949 (Emory and Henry); M.D., 1953 (Virginia)

---

[52]Resigned June 30, 1975.
[53]Resigned June 30, 1975.

ROY V. TALMAGE (1970), Professor of Surgery (Orthopedics) and Pharmacology
B.A., 1938 (Maryville College); M.A., 1940 (Richmond); Ph.D., 1947 (Harvard)
J. RICHARD TAMISIEA (1973), Clinical Assistant Professor of Medicine
B.S., 1960, M.D., 1964 (Creighton)
A. JACK TANNENBAUM (1968), Clinical Associate Professor of Medicine
B.A., 1931 (Duke); M.D., 1935 (St. Leo's Hospital)
CATHERINE ANNE TAYLOR (1966), Assistant Professor of Psychiatry in the Departments of Psychiatry and Pediatrics
B.S., 1950 (Carson-Newman College); M.D., 1957 (Tennessee)
ISAAC MONTROSE TAYLOR (1952), Adjunct Professor of Medicine (Dean, 1964-1971)
A.B., 1942 (North Carolina); M.D., 1945 (Harvard)
JAMES ALEXANDER TAYLOR (1949), Clinical Associate Professor of Medicine
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)
PETER L. TEMPLE (1973), Clinical Assistant Professor of Family Medicine
B.A., 1959 (Duke); M.D., 1963 (Emory)
COLIN GORDON THOMAS, JR. (1952), Professor of Surgery
B.S., 1940, M.D., 1943 (Chicago)
WILLIAM E. THOMAS (1964), Clinical Assistant Professor of Psychology in Psychiatry
B.S., 1947 (Hillsdale College); M.A., 1949 (Minnesota); Ph.D., 1955 (Michigan State)
WILLIAM GRADY THOMAS (1961), Associate Professor of Surgery (Audiology) and Assistant Professor of the Institute of Speech Sciences
B.S., 1957 (Appalachian State Teachers College); M.A., 1961 (Washington University); Ph.D., 1968 (Florida)
JOHN A. THOMPSON, JR. (1974), Clinical Assistant Professor of Dermatology
B.A., 1963 (Georgetown); M.D., 1967 (Bowman Gray)
LAWRENCE K. THOMPSON III (1975), Clinical Assistant Professor of Surgery
B.S., 1956, M.D., 1961 (Duke)
LLOYD JAMES THOMPSON (1960), Clinical Professor of Psychiatry, Emeritus
A.B., 1917 (Missouri); M.D., 1919 (Washington University)
WINFIELD L. THOMPSON (1968), Clinical Instructor in Surgery
B.S., 1935, M.D., 1938 (Maryland)
LEWIS SUMNER THORP (1957), Clinical Assistant Professor of Medicine and Family Medicine
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)
ROBERT L. THORPE (1973), Instructor in Radiology
Cert. in R.T., 1967 (North Carolina Memorial Hospital); A.B., 1971 (North Carolina at Charlotte); M.S., 1973 (State University of New York at Buffalo)
JAMES D. THULLEN (1975), Assistant Professor of Pediatrics
B.S., 1963 (Ohio Northern University); D.O., 1970 (College of Osteopathic Medicine and Surgery)
JAMES TIDLER (1973), Clinical Associate Professor of Medicine
M.D., 1944 (Medical College of Virginia)
ELLIS A. TINSLEY, SR. (1970), Clinical Assistant Professor of Surgery
B.A., 1956, M.D., 1959 (Vanderbilt)
AUBREY GRANVILLE TOLLEY (1956), Clinical Associate Professor of Psychiatry
M.D., 1952 (Virginia)
TIMOTHY C. TOOMEY (1971), Assistant Professor of Psychology in Psychiatry
B.A., 1966 (East Carolina); M.S., 1970, Ph.D., 1971 (Georgia)
SVEIN UTHEIM TOVERUD (1969), Associate Professor of Pharmacology and Associate Professor of Oral Biology in the School of Dentistry
D.M.D., 1954 (Harvard); Cand. Odont., 1956 (Norwegian State Dental School); Dr. Odont., 1964 (University of Oslo)
MURPHY F. TOWNSEND (1968), Clinical Assistant Professor of Medicine
B.S., 1957 (Wake Forest); M.D., 1961 (Bowman Gray)

DANIEL L. TREVINO (1972), Assistant Professor of Physiology
B.A., 1965, Ph.D., 1970 (Texas)
BEVERLY TUCKER (1973), Clinical Assistant Professor of Family Medicine
B.S., 1963, M.D., 1966 (North Carolina)
GEORGE REGINALD TUCKER, JR. (1959), Clinical Associate Professor of Medicine and Family Medicine
B.S., 1952, M.D., 1955 (North Carolina)
LANDRUM S. TUCKER (1974), Assistant Professor of Psychiatry
B.A., 1961 (Tennessee); M.D., 1966 (Stanford)
GILBERT W. TURNER (1974), Lecturer in Medical Allied Health Professions
B.S., 1971 (Elon); Cert. R.T., 1968 (North Carolina)
LARRY TURNER (1952), Clinical Assistant Professor of Ophthalmology
A.B., 1935, M.D., 1939 (Duke)
ROBERT TWAROG (1965), Associate Professor of Bacteriology
B.S., 1956, M.S., 1958 (Connecticut); Ph.D., 1962 (Illinois)
MARVIN L. TYAN (1971), Professor of Bacteriology and Immunology (part-time)
A.B., 1949, M.D., 1952 (California)
LARRY A. TYREE (1971), Clinical Assistant Professor of Medicine
M.D., 1962 (Bowman Gray)
HENRY S. M. UHL (1973), Clinical Professor of Medicine
A.B., 1943 (Princeton); M.D., 1947 (Harvard)
LOUIS EDWIN UNDERWOOD (1969), Associate Professor of Pediatrics
A.B., 1958 (Kentucky); M.D., 1961 (Vanderbilt)
PETER C. UNGARO (1975), Associate Professor of Medicine
B.A., 1964 (Oberlin); M.D., 1968 (University of Miami)
LON ESKER USSERY, JR. (1956), Assistant Professor of Psychology in Psychiatry and Clinical Assistant Professor of Psychology
B.A., 1950 (Richmond); Ph.D., 1968 (Duke)
PETER D. UTSINGER (1974), Assistant Professor of Medicine
B.A., 1965 (LeCollege de L'Assomption); M.D., 1969 (Georgetown)
STEVEN VALAND (1973), Instructor in Medical Allied Health Professions
A.A., 1964 (Wingate); B.S., 1966 (Wake Forest); M.S., 1969 (Bowman Gray)
GLEN E. VAN ANDEL (1974), Clinical Assistant Professor of Medical Allied Health Professions
A.B., 1965 (Calvin College); M.A., 1968 (North Carolina at Chapel Hill)
CHARLES DURWARD VAN CLEAVE (1970), Professor of Anatomy, Emeritus
A.B., 1925 (Colorado); Ph.D., 1928 (Chicago)
ETHARD W. VAN STEE (1975), Adjunct Associate Professor of Pharmacology
B.S., 1958, D.V.M., 1960 (Michigan State); M.S., 1966, Ph.D., 1970 (Ohio State)
HARRY VAN VELSOR (1973), Clinical Assistant Professor of Dermatology
M.D., 1947 (Albany Medical College)
JUDSON JOHN VAN WYK (1955), Kenan Professor of Pediatrics
A.B., 1943 (Hope College); M.D., 1948 (Johns Hopkins)
BENJAMIN VATZ (1968), Clinical Associate Professor of Medicine
A.B., 1942 (North Carolina); M.D., 1945 (Duke)
HUGH DAVID VERNER (1969), Clinical Assistant Professor of Medicine
B.S., 1940 (Davidson); M.D., 1943 (Johns Hopkins)
CHARLES R. VERNON (1974), Clinical Associate Professor of Psychiatry
B.A., 1948 (North Carolina); M.D., 1952 (Western Reserve)
HOWARD VEST (1975), Clinical Instructor in Anesthesiology
B.A., 1965, M.D., 1971 (Virginia)
HENRY V. VICK (1973), Clinical Assistant Professor of Family Medicine
B.S., 1951 (Wake Forest); M.D., 1955 (Bowman Gray)
CHARLES J. VIERCK, JR. (1975), Visiting Associate Professor of Physiology
B.S., 1959, Ph.D., 1963 (Florida at Gainesville)
FRED A. VINSON, JR. (1973), Clinical Assistant Professor of Psychiatry
A.B., 1953, M.D., 1958 (Virginia)

FRANK M. VOLBERG (1975), Assistant Professor of Radiology
B.A., 1965, M.D., 1969 (Duke)
EDWARD H. WAGNER (1971), Assistant Professor of Medicine, Family Medicine and Epideminology
B.A., 1961 (Princeton); M.D., 1965 (State University of New York)
ROBERT HOWARD WAGNER (1957), Professor of Pathology and Biochemistry
A.B., 1943 (DePauw); Ph.D., 1951 (Cincinnati)
STEPHEN WAGNER (1975), Assistant Professor of Medicine
B.A., 1964 (Pennsylvania); M.D., 1969 (Rochester)
HOWARD S. WAINER (1968), Clinical Associate Professor of Medicine
A.B., 1950 (North Carolina); M.D., 1954 (Bowman Gray)
LEOPOLD M. WALDENBURG (1975), Clinical Instructor in Surgery
B.S., 1962 (Tufts College); M.D., 1965 (Tufts University)
DAVID H. WALKER (1975), Assistant Professor of Pathology
B.A., 1965 (Davidson); M.D., 1969 (Vanderbilt)
PRESTON A. WALKER (1974), Clinical Associate Professor of Psychiatry
B.S., 1955 (South Carolina); M.D., 1959 (Medical College of South Carolina)
RICHARD ISLEY WALKER (1962), Professor of Medicine
B.S., 1950 (North Carolina); M.D., 1954 (Harvard)
AUDREY VIRGINIA WALL (1964), Instructor in Clinical Social Work in Family Medicine and Medicine
B.A., 1951, M.S.W., 1954 (Howard University)
LESLIE A. WALTON (1975), Assistant Professor of Obstetrics and Gynecology
B.S., 1959 (Howard); M.D., 1964 (State University of New York-Downstate Medical Center)
LOUISE MURPHY WARD (1952), Associate Professor of Medical Technology
A.B., 1933 (North Carolina at Greensboro); M.P.H., 1947 (Michigan)
SARAH LOU WARREN (1956), Associate Professor of Family Medicine and Assistant Professor of Medicine
A.B., 1944 (North Carolina); M.D., 1949 (Medical College of Virginia)
MARTHA H. WARRICK (1972), Clinical Assistant Professor of Psychiatry
B.A., 1961 (Gettysburg); B.S., 1967 (Washington University); M.D., 1967 (West Virginia)
SAMUEL E. WARSHAUER (1973), Clinical Associate Professor of Medicine
B.A., 1932 (North Carolina); M.D., 1936 (Medical College of Virginia)
DAVID S. WASHBURN (1975), Instructor in Radiology
B.S., 1967, Ph.D., 1975 (North Carolina State)
JESSIE M. WATKINS (1973), Family Nurse Practitioner in Pediatrics
G.R.N., 1949 (Sparks Memorial Hospital); B.S. in Public Health Nursing, 1965, Family Nursing Practitioner Certificate, 1973 (North Carolina at Chapel Hill)
JULIA DAY WATKINS (1964), Associate Professor of Public Health Nursing and Assistant Professor of Family Medicine (part-time)
B.A., 1939 (Bryne Mawr); Nursing Diploma, 1944 (Medical College of Virginia); Prog. in Public Health Nursing, 1947 (Western Reserve); M.P.H., 1957 (North Carolina)
JAMES N. WEAKLY (1971), Assistant Professor of Physiology
B.S., 1963 (Butler); Ph.D., 1968 (Utah)
CARL H. WEATHERLY (1968), Clinical Associate Professor of Pediatrics
M.D., 1949 (Duke)
WILLIAM PHILLIP WEBSTER (1959; 1968), Professor of Pathology and Professor in School of Dentistry
B.S., 1955, D.D.S., 1959, M.S., 1968 (North Carolina)
FREDERICK RENFREE WEEDON (1956), Visiting Professor of Anatomy, Emeritus
B.S., 1921, M.S., 1923 (Florida); M.D., 1929 (Rush Medical School)
KENNETH D. WEEKS (1973), Clinical Associate Professor of Medicine
B.S., 1935 (Davidson); M.D., 1939 (Duke)

ROBERT H. WEINSTEIN (1975), Clinical Assistant Professor of Psychiatry
B.S., 1963, M.D., 1967 (Missouri)

JOSEPH B. WEISSBERG (1973), Clinical Instructor in Medicine
B.A., 1967 (Amherst); M.D., 1971 (Pennsylvania)

EDWIN JULIUS WELLS (1970), Clinical Instructor in Surgery
B.A., 1944 (North Carolina); M.D., 1946 (Pennsylvania); F.A.C.S., 1955, Diplomate American Board Surgery, 1955

GEORGE SCHLAGER WELSH (1953), Clinical Professor of Psychology in Psychiatry
A.B., 1940 (Pennsylvania); Ph.D., 1949 (Minnesota)

NG. K. WENG (1974), Clinical Assistant Professor of Medicine
B.S., M.B., 1956 (University of Malaysia Medical School)

DAVID F. WENTWORTH (1972), Research Assistant Professor of Biochemistry and Nutrition
B.A., 1958 (Vermont); M.A., 1964, M.S., 1968 (Maine); Ph.D., 1972 (Duke)

EMILE E. WERK, JR. (1972), Professor of Medicine
A.B., 1944 (Williams); M.D., 1946 (Cincinnati)

DAVID S. WERMAN (1967), Associate Professor of Psychiatry
B.A., 1943 (Queens College, Flushing, N.Y.); M.D., and Cert. of Medical Studies, 1952 (University of Lausanne, Switzerland)

GAIL T. WERTZ (1973), Assistant Professor of Bacteriology
B.S., 1966 (William and Mary); Ph.D., 1970 (Pittsburgh)

MILLARD W. WESTER (1973), Clinical Associate Professor of Family Medicine
M.D., 1952 (Duke)

JOSEPH WILLIAM WHATLEY, JR. (1963), Clinical Assistant Professor of Pediatrics
A.B., 1949 (North Carolina); M.D., 1959 (Duke)

CLAYTON E. WHEELER, JR. (1961), Professor of Dermatology
B.A., 1938, M.D., 1941 (Wisconsin)

RAYMOND M. WHEELER (1965), Clinical Associate Professor of Medicine
M.D., 1943 (Washington University)

JAMES RUSHTON WHITE (1962), Professor of Biochemistry and Nutrition
B.S., 1948, Ph.D., 1953 (Stanford)

JAMES STARK WHITE, JR. (1956), Clinical Associate Professor of Pediatrics
B.S., 1945 (North Carolina); M.D., 1947 (Northwestern)

ROBERT W. WHITENER (1975), Clinical Associate Professor of Psychiatry
A.B., 1950 (Catawba); M.D., 1954 (Northwestern)

BARRY L. WHITSEL (1972), Associate Professor of Physiology and Associate Professor of Oral Biology, School of Dentistry
B.A., 1959 (Gettysburg); M.S., 1963 (Pennsylvania); Ph.D., 1965 (Illinois at Chicago)

DONALD ERIC WIDMANN (1966), Clinical Assistant Professor of Psychiatry
A.B., 1956 (Harvard); M.D., 1960 (Western Reserve)

FREDERICK G. WIEGAND (1969), Associate Professor of Obstetrics and Gynecology
B.A., 1943 (Yale); M.D., 1946 (Hahnemann)

BENSON REID WILCOX (1963), Professor of Surgery (Thoracic)
A.B., 1953, M.D., 1957 (North Carolina)

CHARLES B. WILKERSON (1971), Clinical Associate Professor of Medicine
M.D., 1944 (Medical College of Virginia)

LUCIEN S. WILKINS (1973), Clinical Assistant Professor of Medicine
A.B., 1963 (Duke); M.D., 1967 (Medical College of Virginia)

CHARLES A. WILKINSON (1970), Clinical Assistant Professor of Surgery
B.S., 1952 (Wake Forest); M.D., 1956 (Duke)

ROBERT W. WILLETT (1971), Clinical Associate Professor of Medicine
M.D., 1948 (Duke)

EDWARD SUTHERLIN WILLIAMS (1964), Clinical Associate Professor of Medicine
B.A., 1950, M.D., 1954 (North Carolina)

[54] LEWIS E. WILLIAMS (1974), Instructor in Surgery
B.S., 1961 (Fordham); M.D., 1965 (New Jersey College of Medicine)
PAUL F. WILLIAMS (1962), Clinical Instructor in Medicine
B.S., 1951 (Wake Forest); M.D., 1955 (Pennsylvania)
R. BERTRAM WILLIAMS, JR. (1969), Clinical Assistant Professor of Surgery
B.A., 1940 (North Carolina); M.D., 1943 (Vanderbilt)
ROBERT W. WILLIAMS (1970), Clinical Assistant Professor of Surgery
B.S., 1942 (Harvard); M.D., 1945 (Cornell)
FRANK CRANE WILSON, JR. (1964), Professor of Surgery (Orthopedics)
B.A., 1950 (Vanderbilt); M.D., 1954 (Georgia)
GLENN WILSON (1970), Professor of Medicine
B.A., 1951, M.A., 1952 (Oklahoma)
IAN CLARKE WILSON (1959), Clinical Associate Professor of Psychiatry
M.B., Ch.B., 1946, D.P.H., 1950 (University of Edinburgh, Scotland); D.P.M., 1956 (University of Leeds, England)
JACK K. WILSON (1973), Clinical Assistant Professor of Medicine
B.S., 1962 (Mississippi College); M.D., 1966 (University of Mississippi)
JOHN ERIC WILSON (1950), Professor of Biochemistry and Nutrition
B.S., 1941 (Chicago); M.S., 1944 (Illinois); Ph.D., 1948 (Cornell)
WALTER HOWARD WILSON (1952), Clinical Professor of Medicine
A.B., 1933 (North Carolina); M.D., 1937 (Jefferson Medical College)
MARTHA SIMMS WINGFIELD (1968), Clinical Assistant Professor of Medicine
B.S., 1955 (University of Virginia); M.D., 1959 (Medical College of Virginia)
ROBERT B. WINSLOW (1971), Clinical Assistant Professor of Surgery
B.A., 1958 (Princeton); M.D., 1962 (Columbia)
PETER NIKOLAUS WITT (1967), Lecturer in Pharmacology
Bachelors, 1944 (University of Berlin, Germany); M.D., 1946 (University of Tuebingen)
[55] RICHARD V. WOLFENDEN (1970), Professor of Biochemistry and Nutrition
B.A., 1956 (Princeton); B.A., 1958, M.A., 1961 (Oxford University); Ph.D., 1964 (Rockefeller Institute)
GEORGE T. WOLFF (1968), Assistant Professor of Family Medicine and Clinical Associate Professor of Medicine
A.B., 1948 (North Carolina); M.D., 1952 (Jefferson Medical College)
DONALD MILTON WOOD (1963), Associate Professor of Psychology in Psychiatry
B.S., 1959 (Purdue); M.A., 1962, Ph.D., 1963 (North Carolina)
THOMAS J. WOOD (1970), Assistant Professor of Surgery (Speech and Hearing Sciences)
B.S., 1965, M.A., 1969, Ph.D., 1970 (Southern Mississippi)
WILLIAM BAINSTER WOOD (1963), Associate Professor of Medicine
B.S., 1953, M.D., 1956 (North Carolina)
JERRY C. WOODWARD (1973), Clinical Instructor in Medicine
A.B., 1964, M.D., 1968 (North Carolina)
LYNDA D. WOODRUFF (1974), Instructor in Medical Allied Health Professions (Physical Therapy)
B.A., 1969, M.S., 1971 (Case Western Reserve)
JAMES WATSON WOODS, JR. (1952), Professor of Medicine
A.B., 1939 (Tennessee); M.D., 1943 (Vanderbilt)
JAMES RHODES WRIGHT (1960), Clinical Instructor in Surgery and Ophthalmology
A.B., 1937 (North Carolina); M.D., 1940 (Maryland)
JUDITH A. WYNNEMER (1972), Clinical Assistant Professor of Medicine
B.S., 1963 (Chicago); M.D., 1967 (Wisconsin)

---

[54] Resigned June 30, 1975.
[55] Leave of absence, January 1, 1976-June 30, 1976.

PRISCILLA B. WYRICK (1973), Assistant Professor of Bacteriology
B.S., 1963, M.S., 1967, Ph.D., 1971 (North Carolina at Chapel Hill)

RICHARD A. WYRICK (1972), Assistant Professor of Psychology in Psychiatry
B.S., 1966 (Oregon); M.A., 1970, Ph.D., 1972 (Arizona)

WILLIAM GEOFFREY WYSOR, JR. (1956), Clinical Associate Professor of Medicine
B.A., 1947, M.D., 1950 (Virginia)

LLOYD ROBERT YONCE (1957), Associate Professor of Physiology
B.S., 1949 (Montana State); M.S., 1952 (Oregon State); Ph.D., 1955 (Michigan)

DANIEL TEST YOUNG (1955), Professor of Medicine
B.S., 1946 (Guilford College); M.D., 1950 (Harvard)

DAVID ALEXANDER YOUNG (1945), Clinical Professor of Psychiatry
A.B., 1928 (North Carolina); M.D., 1931 (Harvard)

RICHARD N. YOUNG (1970), Adjunct Assistant Professor of Surgery (Otolaryngology)
B.S., 1968 (Utah State); M.A., 1970 (New Mexico)

STEPHEN L. YOUNG (1971), Clinical Instructor in Medicine
B.S., 1964 (Arizona); M.D., 1968 (California)

WILLIAM BEAUREGARD YOUNG (1957), Clinical Assistant Professor of Medicine
M.D., 1948 (Emory)

WILLIAM JAY YOUNT (1970), Professor of Medicine and Associate Professor of Bacteriology
B.S., 1957, M.D., 1960 (Wisconsin)

KAREN JOYCE YUNDT (1974), Instructor in Medical Allied Health Professions (Physical Therapy)
B.A., 1971 (Wittenburg); M.S., 1973 (Duke)

NAKHLEH PACIFICIO ZARZAR (1959), Clinical Associate Professor of Psychiatry
B.A., 1952, M.D., 1956 (American University of Beirut, Lebanon)

BARRY R. ZEEBURG (1975), Instructor in Biochemistry and Nutrition
B.S., 1971 (Northwestern); Ph.D., 1974 (North Carolina at Chapel Hill)

THE NORTH CAROLINA MEMORIAL HOSPITAL

General Director . . . . . Dennis R. Barry
Administrative Director . . . . . .Robert F. Burgin
Assistant to the General Director . . . . . .Fred Parker
Assistant to the General Director for Planning . . . . . .Vincent R. Kaval
Chairman, Department of Nursing . . . . . Faye Pickard
Director, Fiscal Services . . . . . .Charles Wessell
Director, Medical Staff Services . . . . . James F. Lane
Director, Professional Support Services . . . . . Glenn E. Potter
Director, General Services . . . . . William H. Considine
Director, Management Systems and Data Processing . . . . . C. S. Reeves
Director, Patient Care Management . . . . . Robert Langlais
Director, Patient Care Management . . . . . .Joe Peters
Director, Patient Care Management . . . . . .Tom Hardy
Director, Personnel . . . . . Marion C. Hubbard
Director, Primary Care Center . . . . . John Noble, M.D.
Director, Volunteers . . . . . .Elaine M. Hill

EXECUTIVE COMMITTEE OF THE MEDICAL AND DENTAL STAFF

Dr. William E. Easterling, Chief of Staff, *Chairman*
Dr. Kenneth Sugioka, *Vice-Chairman*
Dr. Clayton Wheeler, *Secretary*

Mr. Dennis R. Barry (ex-officio)
Mr. Robert Burgin, Recording Secretary
Dr. William J. Cromartie
Dr. Robert C. Crounse
Dr. Thomas E. Curtis
Dr. Floyd W. Denny
Dr. Donal Dunphy
Dr. Christopher C. Fordham III
Dr. Joseph W. Grisham
Dr. William D. Heizer
Dr. Charles H. Hendricks
Dr. William W. McLendon
Dr. Samuel McPherson, Jr.
Dr. Robert L. Ney
Mrs. Faye Pickard
Dr. James Scatliff
Dr. Colin G. Thomas
Dr. Raymond P. White

DEPARTMENT OF ANESTHESIOLOGY

Kenneth Sugioka, *Chairman* . . . . . Respiratory Physiology
Albert A. Bechtoldt . . . . . General Anesthesia
David R. Brown . . . . . Cardiovascular Anesthesia
Edward Davidian . . . . . Pharmacology and Anesthesia
Jawahar N. Ghia . . . . . .Cardiovascular Anesthesia and Regional Anesthesia
Kenneth Haslam . . . . . .Medical Engineering
Trevor Hughes . . . . . .Medical Education
Enid R. Kafer . . . . . Respiratory Physiology Research
Kenneth J. Levin . . . . . .Pediatric Anesthesia and Inhalation Therapy
Robert A. Mueller . . . . . .Pharmacologic Research Anesthesia
Edward A. Norfleet . . . . . Acute Medicine
Joseph F. Patterson . . . . . .Outpatient Anesthesia
Peter V. Scott . . . . . Intensive Care

DEPARTMENT OF DERMATOLOGY

Clayton E. Wheeler, Jr., *Chairman*
Robert A. Briggaman
Ivor Caro
Robert G. Crounse

Part-time Staff

George W. Crane, Jr.
Robert N. Davis
Michael J. Donahue
John L. Farmer
Robert S. Gilgor
Gloria Graham
Tommy B. Griffin
Richard R. Henderson
Frank M. Houston
Elizabeth P. Kanof
Donald D. Leonard
William S. Logan
Herbert Z. Lund
William S. Miller
Frances Pascher
William A. Phillips
Samuel B. Pratt
Harry W. Scott
John A. Thompson, Jr.
Harry Van Velsor

DEPARTMENT OF FAMILY MEDICINE

William L. Fleming
Eric C. Jelly
Eugene S. Mayer
William P. Richardson
David D. Schmidt
Sarah Lou Warren

Part-time Staff

Julio DeAngelis
Michael Dugan
Lewis T. Thorpe

DEPARTMENT OF MEDICINE

Robert L. Ney, *Chairman* . . . . . Internal Medicine & Endocrinology
[1]Thomas B. Barnett . . . . . Internal Medicine & Pulmonary Diseases
Mario C. Battigelli . . . . . Internal Medicine & Pulmonary Diseases
Walter R. Berryhill . . . . . Internal Medicine
Gerald W. Blake . . . . . Internal Medicine & Infectious Diseases
Philip M. Blatt . . . . . Internal Medicine & Hematology
William B. Blythe . . . . . Internal Medicine & Nephrology
William F. Bobzien III . . . . . Internal Medicine
Larry W. Boyles . . . . . Internal Medicine & Neurology
Eugene M. Bozymski . . . . . Internal Medicine & Gastroenterology
Bruce R. Brodie . . . . . Internal Medicine & Cardiology
Philip A. Bromberg . . . . . Internal Medicine & Pulmonary Diseases
James A. Bryan II . . . . . Internal Medicine & Hematology
Romulo E. Colindres . . . . . Internal Medicine & Nephrology
Ernest Craige . . . . . Internal Medicine & Cardiology
William J. Cromartie . . . . . Internal Medicine & Infectious Diseases
Frederic L. Eldridge . . . . . Internal Medicine & Pulmonary Diseases
Thomas W. Farmer . . . . . Internal Medicine & Neurology
Arthur L. Finn . . . . . Internal Medicine & Nephrology
William F. Finn . . . . . Internal Medicine & Nephrology
Janet J. Fischer . . . . . Internal Medicine & Infectious Diseases
William L. Fleming . . . . . Internal Medicine
Christopher C. Fordham III . . . . . Internal Medicine & Nephrology

[1]Absent on leave, August 1, 1975 through July 31, 1976.

James R. Foster . . . . . Internal Medicine & Cardiology
Hillel J. Gitelman . . . . . Internal Medicine & Nephrology
Carl W. Gottschalk . . . . . Internal Medicine & Nephrology
T. Kenneth Gray . . . . . Internal Medicine & Endocrinology
Thomas R. Griggs . . . . . Internal Medicine & Cardiology
John T. Gwynne . . . . . Internal Medicine & Endocrinology
Nortin M. Hadler . . . . . Internal Medicine & Immunology
Colin D. Hall . . . . . Internal Medicine & Neurology
William D. Heizer . . . . . Internal Medicine & Gastroenterology
John C. Herion . . . . . Internal Medicine & Hematology
William B. Herring . . . . . Internal Medicine & Hematology
Walter Hollander, Jr. . . . . Internal Medicine & Nephrology
Axalla J. Hoole . . . . . Internal Medicine
Vernon B. Hunt . . . . . Internal Medicine
Henry S. Kingdon . . . . . Internal Medicine & Hematology
John S. Kizer . . . . . Internal Medicine & Pharmacology
William E. Lassiter . . . . . Internal Medicine & Nephrology
Henry R. Lesesne . . . . . Internal Medicine & Gastroenterology
William D. Mattern . . . . . Internal Medicine & Nephrology
David A. McKay . . . . . Internal Medicine
Lambert P. McLaurin . . . . . Internal Medicine & Cardiology
Charles E. Morris . . . . . Internal Medicine & Neurology
John Noble . . . . . Internal Medicine
Claude T. Nuzum . . . . . Internal Medicine & Gastroenterology
David A. Ontjes . . . . . Internal Medicine & Endocrinology
Roy C. Orlando . . . . . Internal Medicine & Gastroenterology
Eugene P. Orringer . . . . . Internal Medicine & Hematology
Lorcan A. O'Tuama . . . . . Internal Medicine & Neurology
Joseph S. Pagano . . . . . Internal Medicine & Infectious Diseases
Jeffress G. Palmer . . . . . Internal Medicine & Hematology
John C. Parker . . . . . Internal Medicine & Hematology
C. Glenn Pickard, Jr. . . . . Internal Medicine
Don W. Powell . . . . . Internal Medicine & Gastroenterology
Samuel M. Putnam . . . . . Internal Medicine
Michael P. Remler . . . . . Internal Medicine & Neurology
Luis Reuss . . . . . Internal Medicine & Nephrology
Harold R. Roberts . . . . . Internal Medicine & Hematology
John F. Rogers . . . . . Internal Medicine & Pharmacology
[2]Ellis L. Rolett . . . . . Internal Medicine & Cardiology
Oscar L. Sapp III . . . . . Internal Medicine & Gastroenterology
Felix A. Sarubbi, Jr. . . . . Internal Medicine & Infectious Diseases
John T. Sessions, Jr. . . . . Internal Medicine & Gastroenterology
Evin H. Sides . . . . . Internal Medicine & Infectious Diseases
John M. Sorrow, Jr. . . . . Internal Medicine & Cardiology
P. Frederick Sparling . . . . . Internal Medicine & Infectious Diseases
John K. Spitznagel . . . . . Internal Medicine & Infectious Diseases
Alton L. Steiner . . . . . Internal Medicine & Endocrinology
Michael R. Swift . . . . . Internal Medicine & Genetics
Peter D. Utsinger . . . . . Internal Medicine & Immunology
Edward H. Wagner . . . . . Internal Medicine
Richard I. Walker . . . . . Internal Medicine & Hematology
Emile E. Werk . . . . . Internal Medicine
William B. Wood . . . . . Internal Medicine & Pulmonary Diseases

[2]Leave of absence, July 1, 1975 through June 30, 1976.

James W. Woods . . . . . Internal Medicine & Cardiology
Daniel T. Young . . . . . Internal Medicine & Cardiology
William J. Yount . . . . . Internal Medicine & Immunology

Part-time Staff

James U. Adelman
James F. Alexander
John W. Allgood
Robert J. Andelman
William J. Banfield
William E. Bellamy, Jr.
W. Tyson Bennett
Charles S. Betts
Robert H. Bilbro
James H. Black
G. Walker Blair, Jr.
Merle D. Bonner
Paul W. Boyles
James T. Brooks
William L. Brooks
David W. Brown
James C. Bruce
Edwin L. Bryan
Roderick M. Buie, Jr.
William R. Bullock
John R. Bumgarner
Thomas F. Camp
Banks R. Cates, Jr.
Verne S. Caviness
John R. Chambliss
Joe T. Chandler
John D. Charlton
David S. Citron
Jack L. Clausen
Archie T. Coffee, Jr.
A. Derwin Cooper
Tim E. Cooper, Jr.
Lionel Cosin
John G. Craddock
George L. Crane
Jesse C. Craven
William F. Credle, Jr.
Daniel L. Crocker
Oscar S. Cunanan
Lawrence M. Cutchin
James H. Davidson
Joseph L. DeWalt
Jose A. Diaz-Buxo
J. Dewey Dorsett, Jr.
John Munroe Douglas
Francis B. Dove, Jr.
William M. Dunlap
Joey W. Eakins
Hubert A. Eaton, Jr.
Charles A. Eure
Charles D. Farmer
Robert L. Fenning
Benjamin B. Ferdon
Charles R. Fernandez
Robert E. Gaddy, Jr.
Norman H. Garrett, Jr.
William H. Gentry
H. William Gillen
Brooks W. Gilmore
William M. Ginn
Harold L. Godwin
Herman A. Godwin, Jr.
Mary B. Golby
Alexander F. Goley
Daniel Gottovi
George R. Grant, Jr.
Claud McNeill Grigg
Gool K. Gupta
Edward D. Haak
Donald G. Hall
Norris B. Harbold
Joseph H. Hardison
Roy A. Hare
James R. Harper
Carlton M. Harris
Charles W. Harris
Martin A. Hatcher, Jr.
Chester C. Haworth
Edward M. Hedgpeth
Fitzgerald Hiestand, Jr.
Dennis L. Hill
Jack B. Hobson
Horace H. Hodges
Joe W. Howland
George V. Irons, Jr.
Steven J. Jacobs
Frank S. Jones
J. Kempton Jones
Weldon H. Jordan
Samuel B. Joyner
William S. Joyner
Luther W. Kelly, Jr.
Richard A. Kelly
Richard L. Kendrick
Louis T. Kermon
Odell C. Kimbrell, Jr.
George E. Koury
Norman J. Kramer
Ted R. Kunstling
Edward E. Landis, Jr.
Edmund J. LeBauer
Eugene S. LeBauer
Sidney F. LeBauer
George M. Leiby

William A. Leonard, Jr.
Arch Ritchie Lewis
Herbert Z. Lund
John J. Lund
John A. Lusk III
J. Calvin MacKay
Donald M MacQueen
Edgar S. Marks
Elisha T. Marshburn, Jr.
Thomas N. Massey, Jr.
Marvin M. McCall III
James H. McCutchan, Jr.
Clinton H. McKay
Thomas H. McMillan, Jr.
Charles R. Merwarth
Horace W. Miller
Phillip R. Miller
David K. Millward
Richard D. Mirel
John A. Moore
George T. A. Morris
Robert S. Munger
John F. Munroe
T. Lynch Murphy
William M. S. Nesbit
William P. Nixon, Jr.
Paul R. O'Bar
Fernando V. Ona
James R. O'Rourke, Jr.
John A. Paar
Ernest B. Page, Jr.
Fred G. Patterson
Robert B. Payne
Thomas S. Perrin, Jr.
Willard C. Pierson, Jr.
James W. Plonk
William G. Porter
Newton G. Pritchett
William I. Procter
Leonard J. Rabold
Edwin A. Rasberry, Jr.
Cecil D. Rhodes, Jr.
Norman J. Robinson
Richard J. Rosen
Chauncey L. Royster
Carl R. Ruppenthal, Jr.
Jerome Ruskin
John W. Sawyer
Samuel E. Scott
Richard G. Senter
Robert E. Sevier
Joyce C. Shaver
Palmer A. Shelburne
Palmer F. Shelburne
William F. Shuford
Kirkwood T. Shultz
David W. Sillmon
William V. Singletary
Timothy H. Smelzer
O. Norris Smith
Philip P. Smith
Roger E. Smith
James W. Snyder
Robert S. Spain
Harry W. Sparrow
Joel F. Spragins
W. Raney Stanford
Rush B. Steelman
Elliott W. Stevens
Joseph B. Stevens
Albert Stewart, Jr.
Joseph W. Stiefel
William C. Sugg, Jr.
Robert H. Svenson
J. Richard Tamisiea
A. Jack Tannenbaum
Isaac M. Taylor
James A. Taylor
Lewis Sumner Thorp
James Tidler
Murphy F. Townsend, Jr.
G. Reginald Tucker, Jr.
Henry S. M. Uhl
Benjamin Vatz
Hugh David Verner
Howard S. Wainer
Audrey V. Wall
Samuel E. Warshauer
Kenneth D. Weeks
James B. Weissberg
Ng K. Weng
Joseph W. Whatley, Jr.
Raymond M. Wheeler
Charles B. Wilkerson
Lucien S. Wilkins
Robert W. Willett
Edward S. Williams
Paul F. Williams
Jack F. Wilson
W. Howard Wilson
Martha S. Wingfield
George T. Wolff
Jerry C. Woodard
Judith A. Wynnemer
W. Geoffrey Wysor, Jr.
Stephen L. Young
William B. Young

DEPARTMENT OF NEUROLOGY

Jeffrey C. Allen . . . . . Neurology and Pediatrics and Internal Medicine
Larry W. Boyles . . . . . Neurology and Internal Medicine
Thomas W. Farmer . . . . . Neurology and Internal Medicine
Colin D. Hall . . . . . Neurology and Internal Medicine
Charles E. Morris . . . . . Neurology and Internal Medicine
Lorcan A. O'Tuama . . . . . Neurology and Pediatrics and Internal Medicine
Michael P. Remler . . . . . Neurology and Internal Medicine

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Charles H. Hendricks, *Chairman*
Edward H. Bishop
William E. Brenner
John E. Burnett, Jr.
James R. Dingfelder
William E. Easterling, Jr.
Lamar E. V. Ekbladh
Wesley C. Fowler, Jr.
Mary Susan K. Fulghum
John C. Hisley
Jaroslav F. Hulka
Jack P. Mercer
Guy Photopulos
G. Fletcher Rieman
Ramesh M. Shah
Linda G. Staurovsky
Fred D. Summers, Jr.
Luther M. Talbert
Leslie A. Walton
Frederick G. Wiegand

Part-time Staff

Harvey Adams
John M. Bishop
Guy H. Branaman
James H. Burrus
Takey Crist
John L. Currie
Courtney D. Egerton
Paul A. Fleming
W. Davis Fort
Thomas B. Greer
Warner L. Hall
Richard I. Hayes
Windsor A. Holt
O. Hunter Jones
John A. Kirkland
Bennett W. LaPrade
Richard E. Lassiter
Lloyd D. Lohr
Rilla R. Murray
Ms. Frances Muth
William E. Nebel
Sam L. Parker
R. Pinkney Rankin
Sandra I. Regenie
Bobby A. Rimer
Lynette K. Russell
Arthur R. Summerlin

DEPARTMENT OF OPTHALMOLOGY

L. Morgan Hale
Lawrence W. Moore, Jr.

Part-time Staff

Samuel D. McPherson, Jr.
Acting Chairman
J. W. Cline
J. L. Etherington
Edward McG. Hedgpeth, Jr.
T. C. Kerns, Jr.
G. T. Kiffney, Jr.
George W. Meyer
H. M. Morrison
M. H. Rubin
Larry Turner
James Wright

DEPARTMENT OF PATHOLOGY

Joe W. Grisham, *Chairman*
Emily S. Barrow
Walter R. Benson
Philip M. Blatt
[1]Kenneth M. Brinkhouse
Kenneth D. Carey
Charles N. Carney
[2]Hanson Y. Chuang
Herbert A. Cooper
Robert E. Cross
Frederic G. Dalldorf
[3]John T. Daly
J. Dieter Geratz
[1]John B. Graham
Thomas R. Griggs
Neil A. Hoffman
R. Page Hudson
William D. Huffiness
Philip T. Johnson
[4]David G. Kaufman
Lawrence M. Killingsworth
Karl A. Koehler
Martin R. Krigman
Robert D. Langdell
James E. T. Laningham
Roger L. Lundblad
Nadia N. Malouf (Anderson)
Arthur J. McBay
Laurence R. McCarthy
Noel B. McDevitt
Jan McQ. McDonagh
Richard P. McDonagh
William W. McLendon
Paul Mushak
Waykin Nopanitaya
James R. Pick, Jr.
Howard M. Reisner
Harold R. Roberts
John Savory
Richard W. Shermer
Edward V. Staab
[5]Bernard E. Statland
Margaret C. Swanton
Robert H. Wagner
[6]David H. Walker
William P. Webster

Part-time Staff

Haynes W. Baird
Robert C. Brown
David L. Coffin
Frederick J. deSerres
Bruce A. Fowler
Charles M. Hassell, Jr.
Choudair Kommineni
Donald D. Leonard
Michael W. Lieberman
Herbert Z. Lund
Arnold S. Nash

DEPARTMENT OF PEDIATRICS

[1]Floyd W. Denny, *Chairman* . . . . . Pediatrics & Infectious Diseases
Jeffrey C. Allen . . . . . Neurology
Arthur S. Aylsworth . . . . . .Pediatrics and Biochemical Genetics
J. Hugh Bryan . . . . . Oncology
Philip D. Buchanan . . . . . Human Cytogenetics
Harrie R. Chamberlin . . . . . Pediatrics and Neurology
Wallace A. Clyde, Jr. . . . . Pediatrics & Infectious Diseases
James C. Coffey, Jr. . . . . Oral Biology & Endocrinology
Albert M. Collier . . . . . Pediatrics & Infectious Diseases
Herbert A. Cooper . . . . . .Pathology
Robert G. Dillard . . . . . Neonatology
Donal Dunphy . . . . . .Community Pediatrics

---

[1]Alumni Distinguished Professor.
[2]Terminated August 31, 1975.
[3]Terminated September 30, 1975.
[4]Effective July 1, 1975.
[5]Effective October 1, 1975.
[6]Effective July 1, 1975.

Ruth Falk . . . . . Child Psychology
Gerald W. Fernald, *Vice Chairman* . . . . . Pediatrics & Infectious Diseases
Frank S. French . . . . . .Pediatrics & Endocrinology
Stephen H. Gehlbach . . . . . Epidemiology & Pediatrics
Robert A. Greenberg . . . . . .Community Pediatrics
Harvey J. Hamrick . . . . . Pediatrics
Herbert S. Harned . . . . . .Pediatrics & Cardiology
Virginia Hebbert . . . . . Pediatric Clinical Social Work
Mary Pat Hemstreet . . . . . Pediatrics & Allergy
Robert T. Herrington . . . . . .Pediatrics & Cardiology
David L. Ingram . . . . . Pediatrics & Infectious Diseases
A. Myron Johnson . . . . . Pediatrics & Hematology
Archie T. Johnson . . . . . Community Pediatrics & Neonatology
Henry N. Kirkman . . . . . .Pediatrics & Biochemical Genetics
Ernest N. Kraybill . . . . . Neonatology
Kenneth J. Levin . . . . . .Anesthesiology
Frank A. Loda . . . . . .Community Pediatrics
Campbell W. McMillan . . . . . Pediatrics & Hematology
C. Arden Miller . . . . . Pediatrics
C. Richard Morris . . . . . Pediatrics & Nephrology
Shihadeh N. Nayfeh . . . . . Endocrinology
Lorcan A. O'Tuama . . . . . Pediatrics & Neurology
Dwight A. Powell . . . . . .Infectious Diseases
Stewart A. Schall . . . . . .Pediatrics & Cardiology
James E. Schwankl . . . . . .Community Pediatrics
Martha K. Sharpless . . . . . .Community Pediatrics
Elizabeth Shute . . . . . Recreation Therapy
Brian Stabler . . . . . Psychology
Catherine A. Taylor . . . . . Pediatric Psychiatry
James D. Thullen . . . . . Neonatology
Louis E. Underwood . . . . . .Pediatrics & Endocrinology
[7]Judson J. Van Wyk . . . . . .Pediatrics & Endocrinology

Part-time Staff

Anne P. Askew
Edward P. Benbow, Jr.
Jerry C. Bernstein
Roy Venden Berry
Doris B. Braxton
John D. Bridgers
Wallace D. Brown
H. David Bruton
Allen E. Cato
Sidney S. Chipman
R. Meade Christian
William M. Clarke
Elwood B. Coley
William G. Conley
Lawrence M. Cutchin
Joanna S. Dalldorf
Shelton P. Dawson
Griggs C. Dickson
Richard M. Doughton
Billy Lee Ferguson
John D. Fletcher
Paige B. Follo
Elizabeth L. Ford
Bryant Galusha
George C. Hemingway
Thomas A. Henson
Victor G. Herring
William C. Hubbard
Olson Huff
Abram Kanof
Richard S. Kelly, Jr.
John H. Knelson
F. X. Calvin Knobeloch
Ronald H. Levine
Arthur H. London, Jr.
William L. London
John F. Lynch, Jr.
James W. Lynn
Mary M. McLeod
William Michal

[7]Kenan Professor of Pediatrics.

James F. Morris
Naomi Morris
Sarah T. Morrow
Kenneth A. Naylor
E. Robert Neely
Thomas B. Nolan
James C. Parke, Jr.
Morton E. Pizer
William C. Powell
Samuel D. Ravenel
Samuel F. Ravenel
William A. Robie
Adrain S. Rubin
Kamal B. Salameh
Robert P. Schwartz
Robert J. Senior
Frank S. Shaw
Charles I. Sheaffer
Earl Siegel
James W. Singer
Donald D. Smith
Harold B. Spangler
Carole M. Stuart
George K. Summer
Carl H. Weatherly
Joseph W. Whatley
James S. White, Jr.

DEPARTMENT OF PSYCHIATRY

Thomas E. Curtis, *Chairman* . . . . . Hospital Psychiatry
Jeffry J. Andresen . . . . . Hospital Psychiatry
William E. Bakewell, Jr. . . . . Director, Undergraduate Education and Hospital Psychiatry
Bruce A. Baldwin . . . . . Student Mental Health
Lenore Behar . . . . . Child Psychology
Priscilla Boekelheide . . . . . Student Mental Health
John I. Boswell . . . . . Director, Child Psychiatry
George Breese . . . . . Research Psychology
Aretas Callaway . . . . . .Social Work
Mary G. Clarke . . . . . Clinical Psychology
Silas B. Coley, Jr. . . . . .Community Mental Health
Barry Cooper . . . . . .Research Psychiatry
Frances C. Driver . . . . . .Community Mental Health
J. Wilbert Edgerton . . . . . .Community Mental Health
John A. Ewing . . . . . Director, Center for Alcohol Studies
A. Jane Faily . . . . . .Community Mental Health
Ruth Falk . . . . . Child Psychology
Allen M. Feinberg . . . . . .Community Mental Health
Merrel D. Flair . . . . . .Director, Medical Studies, School of Medicine
Ramon Florenzano . . . . . .Community Mental Health
James R. Frazier . . . . . .Biological Sciences Research Center
William H. Friedman . . . . . Student Mental Health
Maria Gispert . . . . . .Child Psychiatry
Lester D. Grant . . . . . Research Psychology
Bernard B. Harris . . . . . TEACCH*, Asheville
Seymour L. Halleck . . . . . Director, Graduate Education and Inpatient Psychiatry
Elaine Hilberman . . . . . Hospital Psychiatry
William G. Hollister . . . . . .Community Mental Health
Rosemary Hunter . . . . . .Child Psychiatry
William Hunter . . . . . .Inpatient Psychiatry
Barbara E. James . . . . . .Community Mental Health
Nancy M. Johnson . . . . . Child Psychology
Judy T. Konanc . . . . . Clinical Psychology
Claudeline Lewis . . . . . .Social Work
Herman P. Lineberger . . . . . .Child Psychiatry

*Treatment and Education of Autistic and Related Communications Handicapped Children.

Morris A. Lipton . . . . . Director, Biological Sciences Research Center, and Research Psychiatry
Myron B. Liptzin . . . . . Student Mental Health
Virginia Long . . . . . .Social Work
Lee Marcus . . . . . TEACCH*
Paul L. Martin, Jr. . . . . Community Mental Health
Noel A. Mazade . . . . . Community Mental Health
Gary Mesibov . . . . . Research Psychology
Francis T. Miller . . . . . Community Mental Health
Milton L. Miller . . . . . Director, UNC-Duke Psychoanalytic Institute
Kenneth C. Mills . . . . . Center for Alcohol Studies
Charles S. Newmark . . . . . Clinical Psychology
Paul A. Obrist . . . . . Research Psychology
Raymond L. Paine, Jr. . . . . Director, Inpatient Psychiatry
Mario Perez-Reyes . . . . . Research Psychiatry
Rolffs S. Pinkerton . . . . . Community Mental Health
Arthur J. Prange, Jr. . . . . Research Psychiatry
David Raft . . . . . Liaison Psychiatry
Robert J. Reichler . . . . . TEACCH*
Donald K. Routh . . . . . .Director, Clinical Psychology
Shirley Sanders . . . . . Child Psychology
Joan Scagnelli . . . . . Community Mental Health
Raymond F. Schmitt . . . . . Child Psychiatry
Eric Schopler . . . . . TEACCH*
Carolyn S. Schroeder . . . . . Child Psychology
Louis P. Semrau . . . . . TEACCH*
Jerry L. Sloan . . . . . .TEACCH*, Greenville
Charles E. Smith . . . . . Forensic and Hospital Psychiatry
John J. Soltys . . . . . Child and Community Psychiatry
Roger F. Spencer . . . . . Liaison Psychiatry
Anne Spitznagel . . . . . Child Psychology
Brian Stabler . . . . . Child Psychology
Catherine A. Taylor . . . . . Child Psychiatry
Timothy C. Toomey . . . . . Clinical Psychology
Landrum Tucker . . . . . Child Psychiatry
Lon E. Ussery . . . . . Child Psychology
David Werman . . . . . Director, Outpatient Psychiatry
Donald M. Wood . . . . . Assistant Director, Child Development Institute, Biological Sciences Research Center
Richard Wyrick . . . . . Clinical Psychology

DEPARTMENT OF RADIOLOGY

James H. Scatliff, *Chairman* . . . . . .Neuro & Pediatric Radiology
[1]Joseph J. Bonanno . . . . . .Radiation Therapy
Charles A. Bream . . . . . Gastrointestinal & Bone Radiology
Richard L. Clark . . . . . Genitouroradiology & Microradiology
[2]Francis B. de Friess . . . . . Radiation Physics
David J. Delany . . . . . .Cardiovascular Radiology
Margaret B. Dillard . . . . . Radiation Physics
Faustino C. Guinto, Jr. . . . . .Neuro and E.N.T. Radiology

---

*Treatment and Education of Autistic and Related Communications Handicapped Children.
[1]Resigned December 31, 1975.
[2]UNC Radiation Safety Officer.

[3]M. Reza Habibian . . . . . Nuclear Medicine & Ultrasound
George M. Himadi . . . . . Gastrointestinal & Chest Radiology
Paul F. Jaques . . . . . Chest & General Diagnostic Radiology
Eugene R. Johnston . . . . . Nuclear Physics
[4]Janice C. Keene . . . . . Radiological Sciences
[5]Richard J. Kowalsky . . . . . Radiopharmacy
[6]H. Allen Matthews . . . . . Nuclear Medicine & General Diagnostic Radiology
Gustavo S. Montana . . . . . Director, Radiation Therapy
C. Leon Partain . . . . . Nuclear Physics
Sidney J. Pion . . . . . Genitouroradiology & Vascular Radiology
[7]Stephen M. Pizer . . . . . Nuclear Physics
James C. Reed . . . . . Chest & Radiology Pathology
Edward E. Rogoff . . . . . Radiation Therapy
[8]James A. Roseboro . . . . . Radiation Physics
William M. Russell . . . . . General Diagnostic Radiology
William L. Saylor . . . . . Radiation Physics
Edward V. Staab . . . . . Director, Nuclear Medicine
[9]Michael W. Stannard . . . . . General Diagnostic Radiology & Pediatrics
[10]Michael L. Stewart . . . . . General Diagnostic Radiology
[6]Rick I. Suberman . . . . . Pediatric Radiology
Robert L. Thorpe . . . . . Radiological Sciences
[6]Alex L. Tucker . . . . . General Diagnostic Radiology
[11]Gilbert W. Turner . . . . . Radiological Sciences
Frank M. Volberg . . . . . Pediatric Radiology
David B. Washburn . . . . . Radiological Physics

DEPARTMENT OF SURGERY

Colin G. Thomas, Jr., *Chairman* . . . . . General Surgery
Frederick P. Avis . . . . . Urology
Timir Banerjee . . . . . Neurosurgery
William Paul Biggers . . . . . Otolaryngology
Abner G. Bevin . . . . . Plastic and General
William H. Bowers . . . . . Orthopedics
H. Robert Brashear . . . . . Orthopedics
Joseph A. Buckwalter . . . . . General Surgery
Paul I. Bunce . . . . . Urology
Norman A. Coulter . . . . . Biomathematics-Bioengineering
Robert D. Croom III . . . . . General Surgery
David E. Downie . . . . . Biomathematics-Bioengineering
Gordon S. Dugger . . . . . Neurosurgery
Newton D. Fischer . . . . . Otolaryngology
Floyd A. Fried . . . . . Urology
Charles A. Herbst, Jr. . . . . General
Henry Shi-han Hsiao . . . . . Bioengineering
George Johnson, Jr. . . . . General (Vascular & Traumatic)
Edwin R. Lappi . . . . . Bioengineering

---

[3]Leave of absence, November 1, 1975-August 1, 1976.
[4]Vice Chairperson, Department of Medical Allied Health Professions.
[5]Primary appointment, UNC-School of Pharmacy.
[6]Resigned June 30, 1975.
[7]Primary appointment in Department of Computer Science.
[8]Primary appointment, UNC-School of Public Health.
[9]Visiting appointment terminated January 31, 1976.
[10]Visiting appointment terminated September 30, 1975.
[11]Primary appointment, Department Medical Allied Health Professions.

Stanley R. Mandel . . . . . General (Vascular & Traumatic)
Lockert B. Mason . . . . . General
Noel B. McDevitt . . . . . General (Vascular & Traumatic)
Gordon F. Murray . . . . . Cardiothoracic
Margaret A. Nelsen . . . . . General
James F. Newsome . . . . . General
Hubert C. Patterson . . . . . General
Jack B. Peacock . . . . . General (Vascular & Traumatic)
Houston H. Pittman . . . . . Neurosurgery
Jiri Prazma . . . . . Otolaryngology
Edwin T. Preston . . . . . Orthopedics
Herbert J. Proctor . . . . . General (Vascular & Traumatic)
Richard B. Raney . . . . . Orthopedics
Elizabeth O. Robertson . . . . . Audiology
Harold C. Smith . . . . . Biochemistry
Peter J. K. Starek . . . . . Cardiothoracic
Peter S. Stevens . . . . . Urology
Roy V. Talmage . . . . . Orthopedics
William G. Thomas . . . . . Audiology and Speech Pathology
Benson R. Wilcox . . . . . Cardiothoracic
Frank C. Wilson . . . . . Orthopedics
Robert B. Winslow . . . . . Plastic Surgery
Thomas J. Wood . . . . . Audiology
Richard N. Young . . . . . Audiology

Part-time Clinical

Preston Bradshaw . . . . . Urology
Paul Burroughs . . . . . Orthopedics
John Codington . . . . . General
George Cooper . . . . . Otolaryngology
William Crutchfield . . . . . Otolaryngology
Thomas Dameron . . . . . Orthopedics
Thomas Daniel . . . . . Urology
James Davis . . . . . General
Joseph Dewalt . . . . . Orthopedics
James Dineen . . . . . Orthopedics
George Edwards . . . . . Orthopedics
Ed Eady . . . . . Urology
Powell Fox . . . . . Urology
Edgar Garrabrant . . . . . Otolaryngolgoy
Michael Glasscock . . . . . Otolaryngology
John Goodson . . . . . General
Gary Grooms . . . . . General
William Hall . . . . . General
Harold Hamit . . . . . General
Elzie Hart . . . . . Otolaryngology
Henry Hartzog . . . . . General
Oliver Hunt . . . . . General
Glendall King . . . . . Orthopedics
Ronald Kupper . . . . . Urology
Walter Loehr . . . . . General
Donald Lucey . . . . . Urology
Hugh McAllister . . . . . Thoracic
George Miller . . . . . Orthopedics
Orlando Miller . . . . . Orthopedics
Horace Moore . . . . . General

Richard Myers . . . . . General
Robert Nelson . . . . . Orthopedics
Jack Packer . . . . . Orthopedics
Robert Price . . . . . Neurosurgery
James Ralph . . . . . Otolaryngology
Donald Reibel . . . . . Orthopedics
John F. Rhodes . . . . . Urology
John S. Rhodes . . . . . Urology
Herman Schiebel . . . . . General
Gordon Sinclair . . . . . General
Lacy Stallings . . . . . General
William Sullivan . . . . . General
Lawrence Thompson . . . . . Plastic
Winfield Thompson . . . . . General
Ellis Tinsley . . . . . General
Leopold Waldenburg . . . . . General
Edwin Wells . . . . . General
Charles Wilkinson . . . . . General
R. Bertram Williams . . . . . General
Robert Williams . . . . . General
James Wright . . . . . Otolaryngology
Robert Winslow . . . . . Plastic

Part-time Adjunct

Michael Feezor . . . . . BMME
George Malindzak . . . . . BMME
Charles Starmer . . . . . BMME

INTERNS AND RESIDENTS 1975-1976

Fred M. Abramovitz, Ohio State University School of Medicine, 1973 (Ob-Gyn)
Larry L. Adams, University of North Carolina School of Medicine, 1971 (Radiology)
Charles T. Adkins, West Virginia University School of Medicine, 1974 (Orthopedics)
Joseph E. Agsten, University of North Carolina School of Medicine, 1973 (Family Medicine)
Daniel A. Albert, New York University School of Medicine, 1974 (Medicine)
Cyril A. Allen, University of North Carolina School of Medicine, 1975 (Medicine)
Jeffrey C. Allen, Harvard Medical School, 1969 (Neurology)
William C. Allen, University of Tennessee School of Medicine, 1974 (Anesthesiology)
Edward Anderson, Medical University of South Carolina, 1972, Fellow (Pediatric Infectious Diseases)
William R. Anderson, University of Miami School of Medicine, 1968 (Pathology)
Richard C. Andringa, University of Wisconsin School of Medicine, 1974 (Pediatrics)
William Applegate, University of Louisville School of Medicine, 1972, Clinical Scholar (Medicine)
William S. Atkins, University of North Carolina School of Medicine, 1972 (Ophthalmology)
Richard J. Babaian, Georgetown University School of Medicine, 1972 (Urology)
John H. Baker, University of North Carolina School of Medicine, 1974 (Ob-Gyn)
David E. Ballard, University of New Mexico School of Medicine, 1975 (Anesthesiology)
Harry H. Ballard, West Virginia University School of Medicine, 1971 (Surgery)
Sherwood W. Barefoot, Georgetown University School of Medicine, 1970 (General Surgery)
Barry C. Baron, University of California School of Medicine at San Francisco, 1975 (Medicine)
Charles B. Beasley, University of North Carolina School of Medicine, 1974 (Otolaryngology)
James Beecham, University of Florida School of Medicine, 1973 (Pathology)
Michael B. Belzer, University of Minnesota School of Medicine, 1974 (Medicine)
Brian M. Benson, Jr., University of Maryland School of Medicine, 1971 (Medicine)
Gary S. Berger, University of Rochester School of Medicine, 1969 (Ob-Gyn)
Lee R. Berkowitz, Ohio State University School of Medicine, 1975 (Medicine)
Paul C. Bermanzohn, Duke University School of Medicine, 1974 (Psychiatry)
Douglas F. Berry, Temple University School of Medicine, 1974 (General Surgery)
James F. Black, University of North Carolina School of Medicine, 1975 (Ob-Gyn)
John S. Black, Washington University at St. Louis School of Medicine, 1973 (Anesthesiology)
Robert E. Blaik, University of Chicago School of Medicine, 1972 (Psychiatry)
Jay E. Blum, New York University School of Medicine, 1974 (Medicine)
Ronald L. Blumoff, St. Louis University School of Medicine, 1972 (General Surgery)
Robert S. Boger, Harvard Medical School, 1972 (Medicine)
Jeffrey Bomze, University of Pennsylvania School of Medicine, 1975 (Pediatrics)
Sherif B. Botros, University of North Carolina School of Medicine, 1975 (Surgery)
Thomas Bouldin, University of North Carolina School of Medicine, 1974 (Pathology)
Lawrence D. Bouregard, Emory University School of Medicine, 1969 (Orthopedics)
Edwin A. Bowe, University of Missouri School of Medicine, 1975 (Anesthesiology)
Thomas Boyce, Baylor University School of Medicine, 1972, Clinical Scholar (Pediatrics)
Michael L. Bramley, Yale University Medical School, 1973 (Pediatrics)
Bernard Branson, Northwestern University School of Medicine, 1975 (Rotating[4])
Julian C. Brantley III, University of North Carolina School of Medicine, 1975 (Ob-Gyn)
E. Drew Bridges, University of North Carolina School of Medicine, 1975 (Psychiatry)

Scot A. Brower, University of Cincinnati School of Medicine, 1974, Fellow (Ophthalmic Research)
C. Robert Brown, University of Kentucky College of Dentistry, 1972 (Pedodontics)
Jeffrey B. Brown, University of Vermont School of Medicine, 1973 (Psychiatry)
Toby L. Brown, University of North Carolina School of Medicine, 1971 (Radiology)
George Broze, University of Washington School of Medicine, 1972 (Medicine)
Earl Bryant, University of Kentucky School of Medicine, 1970, Clinical Scholar (Pediatrics)
Robert T. Buchanan, Medical College of Georgia, 1969 (General Surgery)
Dorryl L. Buck, University of Iowa School of Medicine, 1970 (Pathology)
Felicitas Bugarin, Far Eastern University, Manila, Philippines, 1963 (Psychiatry-Child)
Marshall L. Burke, West Virginia University School of Medicine, 1975 (Surgery)
William Campbell, Duke University School of Medicine, 1975 (Psychiatry)
Paul S. Camnitz, University of North Carolina School of Medicine, 1974 (Otolaryngology)
Thomas B. Cannon, University of North Carolina School of Medicine, 1973 (Family Medicine)
Kevin V. Carey, New York University School of Medicine, 1973 (Medicine)
Coleman Carter, University of North Carolina School of Medicine, 1971 (Medicine)
Joey M. Carter, University of North Carolina School of Medicine, 1967 (Plastic Surgery)
Sheldon Chase, University of Michigan School of Medicine, 1970 (Psychiatry)
Terrence C. Chastek, S. U. N. Y., Upstate Medical Center, 1973 (Psychiatry)
G. Rayburn Cheely, University of Pennsylvania School of Medicine, 1974 (Medicine)
Robert Chevalier, University of Chicago School of Medicine, 1972, Fellow (Nephrology)
David A. Clark, S. U. N. Y., Upstate Medical Center, 1973 (Pediatrics)
Fiona Clements, Bartholomew's Hospital, London, Duke University Medical School, 1975 (Medicine)
Steven A. Cohen-Cole, Duke University Medical School, 1974 (Psychiatry)
Karyl G. Cole, University of Chicago School of Medicine, 1972 (Psychiatry)
Phillip Compeau, Harvard Medical School, 1971, Clinical Scholar (Medicine)
James Congleton, University of North Carolina School of Dentistry, 1974 (Pedodontics)
Joseph M. Connors, Yale University School of Medicine, 1973 (Medicine)
Douglas M. Conrad, Medical University of South Carolina, 1974 (Psychiatry)
H. Paul Cooler, Medical University of South Carolina, 1967 (Ophthalmology)
Thomas P. Cornwall, Northwestern University School of Medicine, 1970 (Psychiatry-Child)
Frank Courts, University of North Carolina School of Dentistry, 1974 (Pedodontics)
Emerson G. Crawford, University of North Carolina School of Dentistry, 1969 (Oral Surgery)
Mark A. Cunningham, Vanderbilt University School of Medicine, 1970 (Anesthesiology)
Sidney S. Curry, Bowman Gray School of Medicine, 1975 (Psychiatry)
Claudette E. Dalton, University of Virginia School of Medicine, 1974 (Anesthesiology)
H. Tucker Dalton, University of North Carolina School of Medicine, 1972 (Ophthalmology)
Marion Danis, University of Chicago-Pritzker School of Medicine, 1975 (Medicine)
J. Daniel Davis, Jr., University of Florida School of Medicine, 1974 (Medicine)
John S. Davis, University of North Carolina School of Medicine, 1966 (Neurosurgery)
Howard G. Dawkins, Jr., Bowman Gray School of Medicine, 1968 (Plastic Surgery)
Joseph D'Ercole, Georgetown University School of Medicine, 1969, Fellow (Pediatric Endocrinology)
William Deyden, Universidat National Autonoma De Mexico, 1971 (General Surgery)

Marcus Dick, University of Cincinnati School of Medicine, 1970, Fellow (Anesthesiology)
Marlin L. Dimond, George Washington University School of Medicine, 1975 (Surgery)
G. Peter Dingledein, Columbia College of Physicians and Surgeons, 1970 (General Surgery)
John L. Dolcourt, University of Colorado School of Medicine, 1975 (Pediatrics)
Patrick L. Domine, University of Michigan School of Dentistry, 1970 (Oral Surgery)
Samuel H. Doppelt, University of Chicago School of Medicine, 1973 (Orthopedics)
Douglas J. Dove, Free University of Bruxelles, Belgium, 1968 (Neurology)
John C. Draeger, University of Louisville School of Medicine, 1974 (Psychiatry)
Robert M. Driscoll, Jr., Emory University School of Dentistry, 1973 (Oral Surgery)
Rene C. Duffourc, Louisiana State University School of Medicine, 1971 (Psychiatry-Child)
James F. Dunn, University of Texas, Southwestern, Dallas, 1975 (Medicine)
Michael Durfee, University of Virginia School of Medicine, 1963, Clinical Scholar (Pediatrics)
John R. Emmett, George Washington University School of Medicine, 1970 (Otolaryngology)
Robert A. Erbstein, University of Chicago School of Medicine, 1970 (Radiology)
Curtis J. Eshelman, University of Michigan School of Medicine, 1971 (Family Medicine)
Darrell K. Evans, Jr., University of Arizona School of Medicine, 1975 (Surgery)
David M. Fajgenbaum, Tulane University School of Medicine, 1975 (Surgery)
Donald C. Fidler, University of North Carolina School of Medicine, 1975 (Psychiatry)
Gary J. Fischer, University of Missouri School of Medicine, 1972 (Radiology)
Frank B. Fondren, University of North Carolina School of Medicine, 1974 (Surgery)
Thomas V. Foster, Medical College of Georgia, 1973 (Psychiatry)
Anne B. Francis, University of Pittsburgh School of Medicine, 1973 (Pediatrics)
Charles W. Francis, University of Pittsburgh School of Medicine, 1973 (Medicine)
Paul T. Frantz, Georgetown University School of Medicine, 1971 (General Surgery)
Marcia Freed (Schwartz), Duke University Medical School, 1973 (Psychiatry-Child)
Donna E. Frick, University of North Carolina School of Medicine, 1974 (Psychiatry)
Kurt E. Friedman, Medical College of Virginia School of Dentistry, 1975 (Oral Surgery)
Terry L. Fry, University of North Carolina School of Medicine, 1973 (Otolaryngology)
Richard Furlanetto, University of Chicago School of Medicine, 1973, Fellow (Pediatric Endocrinology)
Jon M. Fusselman, University of Nebraska School of Medicine, 1974 (Pediatrics)
Giuliana G. Gage, Universita' Di Bologna, Bologna, Italy, 1966 (Psychiatry)
Richard F. Gallagher, New York University School of Medicine, 1973 (Medicine)
James C. Garbutt, University of Illinois School of Medicine, 1975 (Psychiatry)
Dianne W. Georgi, University of North Carolina School of Medicine, 1975 (Psychiatry)
John H. Gilliam, University of Tennessee School of Medicine, 1974 (Psychiatry)
Nancy Golden, Tufts University School of Medicine, 1971, Fellow (Child Development)
David A. Granovetter, Yale University School of Medicine, 1974 (Medicine)
William M. Grant, University of North Carolina School of Medicine, 1974 (Ob-Gyn)
William R. Green, Tufts University School of Medicine, 1975 (Pathology)
Walter B. Greene, University of North Carolina School of Medicine, 1972 (Orthopedics)
Stephen A. Grubb, Northwestern University School of Medicine, 1974 (Orthopedics)
Walter Gruber, University of Vienna, Austria, 1966 (Ob-Gyn)

Thomas Gualtieri, Columbia College of Physicians and Surgeons, 1969 (Psychiatry-Child)
W. Bonner Guilford, University of North Carolina School of Medicine, 1973 (Radiology)
Michael Gundle, University of Kansas School of Medicine, 1970 (Psychiatry)
Joseph A. Gurri, University of Miami School of Medicine, 1975 (Surgery)
Edward Gustavson, Harvard Medical School, 1970, Clinical Scholar (Pediatrics)
Carol M. Hagberg, Ohio State University School of Medicine, 1973 (Pediatrics)
Robert D. Hagberg, Ohio State University School of Medicine, 1973 (Family Medicine)
John Haggerty, University of Maryland School of Medicine, 1971 (Psychiatry)
M. Francoise Hall, Harvard Medical School, 1957 (Psychiatry-Child)
Jan Halle (Suberman), Tufts University School of Medicine, 1975 (Radiation Therapy)
James P. Hampsey, University of Rochester School of Medicine, 1970 (Medicine)
L. Clayton Harrell III, University of North Carolina School of Medicine, 1972 (Ob-Gyn)
Russell Harris, Johns Hopkins School of Medicine, 1970, Clinical Scholar (Medicine)
Robert C. Hartmann, Jr., Vanderbilt University School of Medicine, 1975 (Medicine)
Michael T. Hartsfield, Medical College of Alabama, 1968 (Orthopedics)
Ross S. Hemphill, University of Texas, Southwestern, Dallas, 1975 (Medicine)
Frederick Henderson, University of North Carolina School of Medicine, 1970, Fellow (Pediatric Infectious Diseases)
Henry-Jim Hernandez, Cornell University School of Medicine, 1974 (Anesthesiology)
Thomas Higgins, University of North Carolina School of Medicine, 1974 (Rotating[4])
Larry A. High, Jr., University of North Carolina School of Medicine, 1972 (Ob-Gyn)
John P. Hindsley, University of Virginia School of Medicine, 1970 (Urology)
Paul Hine, Ohio State University School of Medicine, 1974 (Pathology)
Tyra E. Hornsby, University of North Carolina School of Dentistry, 1974 (Oral Surgery)
Arden Hothem, Ohio State University School of Medicine, 1968 (Plastic Surgery)
Robert C. Hoyer, University of Minnesota School of Medicine, 1975 (Pediatrics)
Pisupati Hrudayanath, Christian Medical College (Madras University) Vellore, India, 1974 (Radiology)
David M. Humphrey, University of Louisville School of Medicine, 1969 (Anesthesiology)
Larry C. Hurst, University of Vermont School of Medicine, 1973 (Orthopedics)
Lynn D. Ikenberry, University of North Carolina School of Medicine, 1974 (Psychiatry)
Vasanthi Immanuel, Christian Medical College (Madras University) Vellore, India, 1969 (Psychiatry)
C. Gary Jackson, Temple University School of Medicine, 1973 (Otolaryngology)
Daniel G. Jenkins, University of North Carolina School of Medicine, 1972 (Ob-Gyn)
Joseph M. Jenkins, University of North Carolina School of Medicine, 1974 (General Surgery)
J. Charles Jennette, University of North Carolina School of Medicine, 1973 (Pathology)
Eric Jensen, Case Western Reserve University School of Medicine, 1969, Clinical Scholar (Psychiatry)
Kenneth O. Jobson, Emory University School of Medicine, 1968 (Psychiatry)
Jerry C. Johnson, Case Western Reserve University School of Medicine, 1974 (Medicine)
Stephen E. Johnson, Case Western Reserve University School of Medicine, 1975 (Medicine)
Kent L. Jones, University of Kentucky School of Medicine, 1974 (General Surgery)
Roger W. Jones, Indiana University School of Medicine, 1972 (Ob-Gyn)
Joseph Jorizzo, Boston University School of Medicine, 1975 (Medicine)

William A. Julian, University of Kentucky School of Medicine, 1969 (Urology)
Steven H. Kaufman, University of North Carolina School of Medicine, 1973 (Medicine)
Blair A. Keagy, University of Pittsburgh School of Medicine, 1970 (Thoracic Surgery)
T. Gary Kenamond, West Virginia University School of Medicine, 1974 (Medicine)
Bruce L. Kihlstrom, University of North Carolina School of Medicine, 1972 (Neurosurgery)
Frank W. Kilpatrick, University of Vermont School of Medicine, 1970 (Medicine)
Mary Jo Kilpatrick, University of Wisconsin School of Medicine, 1970, Fellow (Pediatric Hematology)
B. Duke Kimbrough, University of Texas at San Antonio School of Medicine, 1974 (General Surgery)
C. Dayton Kirk, University of North Carolina School of Medicine, 1969 (Anesthesiology)
Douglas Klaucke, University of Vermont School of Medicine, 1975 (Pediatrics)
Walter G. Klinger, University of Michigan School of Medicine, 1970 (Dermatology)
Lynda S. Koehler, Indiana University School of Medicine, 1969, Fellow (Anesthesiology)
Charles A. Koller, Ohio State University School of Medicine, 1973 (Medicine)
James M. Komorous, University of Washington School of Medicine, 1973 (Dermatology)
Mark J. Koury, University of Virginia School of Medicine, 1973 (Pathology)
Daniel E. Kowler, Baylor University School of Medicine, 1975 (Psychiatry)
Jonathan Krauss, University of Florida School of Medicine, 1970 (Pathology)
Kevin Kuebler, Tulane University School of Medicine, 1975 (Surgery)
Craig LaForce, Jefferson Medical College, 1975 (Pediatrics)
Roger W. Lamanna, Medical College of Virginia, 1974 (Medicine)
Walter LaMar, University of Oklahoma School of Medicine, 1973 (Pathology)
W. Rick Lambeth, Bowman Gray School of Medicine, 1974 (Ob-Gyn)
Daniel C. Langdon, Baylor University School of Medicine, 1971 (Medicine)
Charles P. Langley III, University of North Carolina School of Medicine, 1975 (Medicine)
James L. Lapis, Southwestern University School of Medicine, 1973 (Medicine)
Charles W. Lapp, Albany Medical College, 1974 (Medicine)
Robert A. Laughlin, University of Pittsburgh School of Medicine, 1968 (General Surgery)
Hal C. Lawrence III, Indiana University School of Medicine, 1975 (Ob-Gyn)
Dorothy McF. Leet, University of Chicago-Pritzker School of Medicine, 1975 (Surgery)
Douglas C. Leet, University of Chicago-Pritzker School of Medicine, 1975 (Surgery)
Philip S. Lesser, Medical University of South Carolina, 1967 (Neurology)
Henry Levine, Case Western Reserve University School of Medicine, 1972 (Psychiatry)
John R. Lina, New Jersey College of Medicine, 1973 (Radiology)
Steven B. Lippmann, University of Texas Branch Medical School, 1970 (Psychiatry-Community)
John C. Long, University of North Carolina School of Medicine, 1973 (Dermatology)
Warner J. Lucas, University of North Carolina School of Dentistry, 1973 (Oral Surgery)
Henry J. MacDonald, University of North Carolina School of Medicine, 1969 (Otolaryngology)
Michael C. Magee, Upstate University at Syracuse School of Medicine, 1973 (Urology)
James Mandell, University of Florida School of Medicine, 1970 (Urology)
Valerie S. Mandell, University of Florida School of Medicine, 1971 (Radiology)
Charles A. Mangano, Jr., University of Rochester School of Medicine, 1974 (Medicine)

John T. Manning, University of North Carolina School of Medicine, 1972 (Pathology)
John P. Manzella, S. U. N. Y. at Buffalo School of Medicine, 1974 (Medicine)
Joel Marcus, New York University School of Medicine, 1975 (Medicine)
Charles Margolis, University of North Carolina School of Medicine, 1974 (Family Medicine)
Jennifer S. Margolis, University of North Carolina School of Medicine, 1974 (Pediatrics)
James N. Martin, Jr., University of North Carolina School of Medicine, 1973 (Ob-Gyn)
Andrew B. Martof, University of North Carolina School of Dentistry, 1975 (Hospital Dentistry)
Daniel P. Mass, University of Chicago-Pritzker School of Medicine, 1975 (Surgery)
Ronald L. May, University of Pennsylvania School of Medicine, 1973, Fellow (Pediatric Hematology)
James Maynard, University of North Carolina School of Medicine, 1973 (Pathology)
Dennis E. Mayock, Ohio State University of Medicine, 1975 (Pediatrics)
Richard J. McDonough, University of Illinois School of Medicine, 1975 (Family Medicine)
Sheppard A. McKenzie III, University of North Carolina School of Medicine, 1974 (Ob-Gyn)
Howard McMahan, University of North Carolina School of Medicine, 1974 (Rotating[4])
John F. McQuade, Yale University School of Medicine, 1973 (Medicine)
James A. McQueen, University of North Carolina School of Medicine, 1970 (Pediatrics)
John T. Meadows, West Virginia University School of Dentistry, 1972 (Oral Surgery)
Ormond C. Mendes, McMaster University School of Medicine, 1973 (General Surgery)
John W. Menius II, University of North Carolina School of Dentistry, 1975 (Hospital Dentistry)
Thomas Mettee, University of Rochester School of Medicine, 1968, Clinical Scholar (Family Medicine)
Max Michael, Harvard Medical School, 1972, Clinical Scholar (Medicine)
Donald B. Middleton, University of Rochester School of Medicine, 1972 (Pediatrics)
John R. Miles, University of Virginia School of Medicine, 1973 (General Surgery)
Thomas P. Miller, University of Texas at San Antonio School of Medicine, 1975 (Anesthesiology)
Steven R. Mills, University of North Carolina School of Medicine, 1972 (Radiology)
Barry A. Moore, University of Kansas School of Medicine, 1970 (Psychiatry)
Frank Moretz, University of North Carolina School of Medicine, 1974 (Anesthesiology)
C. Van Morris, Medical College of Georgia, 1972 (Neurology)
Mary Ann Morris, University of Arkansas School of Medicine, 1972, Fellow (Pediatric Endocrinology)
Wade H. Moser, University of North Carolina School of Medicine, 1974 (Radiology)
Richard A. Moskovitz, Harvard Medical School, 1973 (Psychiatry)
Alvin H. Moss, University of Pennsylvania School of Medicine, 1975 (Medicine)
Mina L. Moss, University of Pennsylvania School of Medicine, 1975 (Medicine)
Patrick B. Mullen, University of North Carolina School of Medicine, 1974 (Psychiatry)
John Myracle, University of Oklahoma School of Medicine, 1974 (Pediatrics)
John L. Nehil, University of Michigan School of Medicine, 1974 (Orthopedics)
Lanny Newell, University of North Carolina of Medicine, 1975 (Medicine)
Dale A. Newton, University of North Carolina School of Medicine, 1973 (Pediatrics)
Robert Noel, Boston University School of Medicine, 1974 (Ophthalmology)
Linda E. Norton, Duke University School of Medicine, 1971 (Pathology)
George W. Nunn, University of Alabama School of Medicine, 1974 (Surgery)

Fred C. Ochsner, Tulane University School of Medicine, 1972 (Anesthesiology)
Frederick A. Oldenburg, Jr., Case Western Reserve University School of Medicine, 1973 (Medicine)
Wendy G. Ose, Duke University School of Medicine, 1974 (Psychiatry)
Elliot R. Pack, Georgetown University School of Medicine, 1974 (Ob-Gyn)
Charles Parker, University of North Carolina School of Medicine, 1975 (Medicine)
Leon Partain, Washington University at St. Louis School of Medicine, 1975 (Radiology)
Enrique Pastoriza, Madrid University, Spain, 1967, Fellow (Nephrology)
Evan Pattishall III, Case Western Reserve University School of Medicine, 1975 (Pediatrics)
David R. Patterson, University of North Carolina School of Medicine, 1973 (Medicine)
Francis J. Peisel, University of Kentucky School of Medicine, 1975 (Anesthesiology)
Robert L. Penn, S. U. N. Y. at Buffalo School of Medicine, 1973 (Medicine)
Samuel H. Pepkowitz, Columbia College of Physicians and Surgeons, 1973 (Pediatrics)
John R. Perry, University of Tennessee School of Medicine, 1967, Fellow (Nuclear Medicine)
Mark W. Peterson, Northwestern University School of Medicine, 1974 (Psychiatry)
Scott Y. Pharr, University of North Carolina School of Medicine, 1972 (Otolaryngology)
Thomas F. Phillips, New York Medical College, 1975 (Surgery)
Harold C. Pillsbury, George Washington University School of Medicine, 1972 (Otolaryngology)
George J. Planavsky, Medical College of Virginia, 1971 (Psychiatry-Child)
Donald A. Pocock, Case Western Reserve University School of Medicine, 1973 (Medicine)
Robert Podolak, Georgetown University School of Medicine, 1974 (Medicine)
Harold C. Pollard III, University of North Carolina School of Medicine, 1974 (Ob-Gyn)
Hoke D. Pollock, University of North Carolina School of Medicine, 1975 (Family Medicine)
R. Kenneth Pons, University of North Carolina School of Medicine, 1962 (Plastic Surgery)
Jan H. Postma, University of North Carolina School of Medicine, 1974 (Orthopedics)
James M. Potts, Medical College of Georgia, 1973 (General Surgery)
Thomas Pribisco, Medical College of Virginia School of Dentistry, 1972 (Pedodontics)
W. David Purnell, Bowman Gray School of Medicine, 1971 (Ophthalmology)
Robert J. Quinet, Cornell University School of Medicine, 1974 (Medicine)
Wanda Radford, University of North Carolina School of Medicine, 1975 (Rotating[4])
Pamela Rand, University of North Carolina School of Medicine, 1975 (Medicine)
Bradley B. Randall, University of Iowa School of Medicine, 1975 (Pathology)
Wilton M. Reavis, University of North Carolina School of Medicine, 1973 (Pathology)
David M. Reid, University of North Carolina School of Medicine, 1975 (Psychiatry)
John O. Reynolds, University of North Carolina School of Medicine, 1971 (Ophthalmology)
William J. Rhead, University of California at San Diego School of Medicine, 1974 (Pediatrics)
Joe L. Robertson, Baylor University School of Medicine, 1975 (Pathology)
John C. Rogers, University of Iowa School of Medicine, 1975 (Family Medicine)
Patrick J. Rowan, University of Iowa School of Medicine, 1972 (Ophthalmology)
Paul D. Ruff, Ohio State University School of Medicine, 1973 (Medicine)
Lincoln D. Russin, Stanford University School of Medicine, 1970 (Radiology)
Kathleen Salter, University of Pittsburgh School of Medicine, 1970, Fellow (Pediatric Cardiology)

Teresa Salter, University of North Carolina School of Medicine, 1975 (Pediatrics)
George W. Sanders, University of Tennessee School of Dentistry, 1972 (Oral Surgery)
Suzanne Sauter, University of North Carolina School of Medicine, 1974 (Medicine)
Susan N. Schmielau, University of Miami School of Medicine, 1974 (General Surgery)
Anne P. Scholl, University of Rochester School of Medicine, 1974 (Pediatrics)
Curtis W. Schupbach, Washington University at St. Louis School of Medicine, 1973 (Dermatology)
Martin L. Schwartz, Duke University School of Medicine, 1973 (Ob-Gyn)
Joseph S. Schwartzer, University of Florida School of Medicine, 1974 (Psychiatry)
Richard D. Serano, University of Virginia School of Medicine, 1973 (Neurology)
David E. Sharp, University of North Carolina School of Medicine, 1973 (Pathology)
Michael C. Sharp, Harvard Medical School, 1974 (Pediatrics)
Walter H. Short, S. U. N. Y., Upstate Medical Center, 1975 (Surgery)
Martin S. Siegel, Case Western Reserve University School of Medicine, 1972 (Medicine)
Richard Silver, Vanderbilt University School of Medicine, 1975 (Medicine)
Lucien C. Simpson, Washington University at St. Louis School of Medicine, 1973 (Dermatology)
Frank E. Sisko, University of Tennessee School of Medicine, 1975 (Anesthesiology)
Betty M. Smith, Tulane University School of Medicine, 1973 (Psychiatry)
Charles W. Smith, Jr., University of North Carolina School of Medicine, 1974 (Family Medicine)
Claude W. Smith, Medical College of South Carolina, 1967 (Thoracic Surgery)
H. McCord Smith, Emory University School of Medicine, 1974 (Neurology)
S. Wayne Smith, University of North Carolina School of Medicine, 1973 (Medicine)
Ronald L. Snow, Bowman Gray School of Medicine, 1974, Fellow (Ophthalmic Research)
Christopher H. Synder, Jr., Case Western Reserve University School of Medicine, 1974 (Pediatrics)
John P. Spencer, University of California at Davis School of Medicine, 1972 (Orthopedics)
David M. Sperry, Wayne State University School of Medicine, 1972 (Neurology)
Ronnie V. Sprinkle, University of North Carolina School of Medicine, 1973 (Family Medicine)
Ronald J. Stanley, University of North Carolina School of Medicine, 1972 (Dermatology)
Gerald L. Strope, University of Rochester School of Medicine, 1974 (Pediatrics)
Jaime Suarez, National University at Columbia, South America, 1966 (Psychiatry-Child)
John P. Surratt, University of North Carolina School of Medicine, 1971 (Dermatology)
Earl A. Surwit, Georgetown University School of Medicine, 1973 (Ob-Gyn)
Stuart O. Tafeen, S. U. N. Y., Upstate Medical Center, 1974 (Dermatology)
Richard C. Taft, University of North Carolina School of Medicine, 1973 (Ob-Gyn)
David E. Tart, University of North Carolina School of Medicine, 1974 (Medicine)
Russell F. Thomas, Tufts University School of Medicine, 1974 (Family Medicine)
Fred B. Thomas, University of Tennessee School of Medicine, 1969 (General Surgery)
James W. Thompson, Tulane University School of Medicine, 1970 (Psychiatry-Community)
D. Cheryl Thorne, University of North Carolina School of Medicine, 1974 (Pathology)
Pat T. Tidwell, University of Florida School of Medicine, 1974 (Family Medicine)
Joseph E. Tripi, S. U. N. Y. at Buffalo School of Medicine, 1972 (Orthopedics)
Michael M. Tuchman, University of Florida School of Medicine, 1974 (Psychiatry)
Drew E. Tuckman, Indiana University School of Medicine, 1974 (General Surgery)
Harrison D. Turner, Vanderbilt University School of Medicine, 1971 (Medicine)

Robert J. Uhren, S. U. N. Y., Upstate Medical Center, 1974 (Family Medicine)
David P. Ushman, University of Arizona School of Medicine, 1975 (Surgery)
William F. Vann, Jr., University of Alabama School of Dentistry, 1974 (Pedodontics)
George C. Venters, University of North Carolina School of Medicine, 1971 (Orthopedics)
Daniel C. Vinson, University of North Carolina School of Medicine, 1974 (Family Medicine)
Joseph R. Walker, Creighton University School of Medicine, 1968 (Neurosurgery)
Eliot M. Wallack, University of Maryland School of Medicine, 1972 (Neurology)
James K. Wallman, University of Vermont School of Medicine, 1974 (Neurosurgery)
James M. Walter, Jr., University of Iowa School of Dentistry, 1975 (Oral Surgery)
David Ward, Case Western Reserve University School of Medicine, 1973, Clinical Scholar (Medicine)
William W. Webb, University of North Carolina School of Medicine, 1971 (Dermatology)
Richard D. Weiner, Duke University School of Medicine, 1972 (Psychiatry)
Eleanor D. Weissberg, University of Pennsylvania School of Medicine, 1972 (Pediatrics)
Kathleen Welch, University of Washington School of Medicine, 1975 (Family Medicine)
Hugh H. Wells, University of Virginia School of Medicine, 1975 (Pediatrics)
Bruce E. Wheeler, Indiana University School of Medicine, 1975 (Medicine)
Susanne White, University of North Carolina School of Medicine, 1975 (Pediatrics)
John S. Whitt, University of Kentucky School of Medicine, 1973 (General Surgery)
E. Brooks Wilkins, University of North Carolina School of Medicine, 1975 (Family Medicine)
Joseph E. Williamson, University of North Carolina School of Medicine, 1973 (Family Medicine)
William G. Wilson, University of North Carolina School of Medicine, 1974 (Pediatrics)
Thomas A. Wilson, University of North Carolina School of Medicine, 1974 (Psychiatry)
Daniel C. Wing, Dartmouth University School of Medicine, 1973 (Family Medicine)
Kenneth H. Winter, University of North Carolina School of Medicine, 1975 (Radiology)
David R. Wood, Ohio State University School of Medicine, 1975 (Medicine)
Halbert O. Woodward, University of Texas at San Antonio School of Medicine, 1973 (Pediatrics)
Virgil H. Wynia, Harvard Medical School, 1972 (Medicine)
Blane W. Yelton, Jr., University of North Carolina School of Medicine, 1971 (Medicine)
Charles DeW. Yoder, University of North Carolina School of Medicine, 1974 (Pediatrics)
Lawrence I. Young, University of North Carolina School of Medicine, 1975 (Anesthesiology)
Mark G. Zukaitis, University of Nebraska School of Medicine, 1975 (Anesthesiology)

A POLICY STATEMENT OF THE FACULTY

As a State University, we have a special opportunity and challenge for leadership and service in meeting the health needs of the State.

Our goal is to educate the best types of physicians for the needs of the State. In achieving this, it is our opinion that we will develop a broad spectrum of competent physicians, many of whom will achieve significance nationally and internationally, as well as within the State.

Because this is a state-supported medical school, the Admissions Committee will give preference to properly qualified residents of North Carolina. We will also encourage applications for admission from properly qualified nonresidents. Since we deem it our goal to have the best possible medical school to provide the most effective physicians for the State, it is essential that our student body be of the highest possible caliber. Therefore, we will make an effort to attract the best possible applicants from both without and within the State. This will include presenting the opportunities of medicine in a vigorous manner to high school students and undergraduates. The presence in our student body of some highly qualified individuals who have grown up and/or received their education elsewhere will contribute positively to the overall intellectual and cultural climate of the student body.

Some medical schools emphasize the development of practitioners; others emphasize the training of academically oriented physicians. We believe the best education, no matter what future course the student follows, is provided by having a faculty and student body with breadth and variety of interests, attitudes, and goals. We hope to develop in this School both those who will deliver primary care to the public as well as those who will be the next generation of educators and investigators.

There is evidence that the opinion prevails among undergraduates of local colleges and universities that our only goal is the education of practitioners. It therefore seems essential that the above principle be stated publicly in a forthright manner.

We believe that a properly trained family practitioner is among those qualified to deliver primary medical care. Such a practitioner should have essentially the same degree of training and the same status as specialists. He should be trained in depth in both internal medicine and pediatrics, and should have an understanding of the emotional needs and psychology of the individual as well as the psychology of the family in its relationship to society. We recognize that in certain settings primary medical care may be more effectively given by groups, internists, or pediatricians.

We believe that medical students should get a broad training in all aspects of medical science and practice. However, because of the ever-increasing complexity of medicine, it seems desirable to make it possible for some students to make an early career decision and adjust their training accordingly. We also intend to develop a very flexible educational program so that students may pace their rates of progress and pursue areas of special interest in depth.

The faculty will assume some responsibility for matters above and beyond actual course content. These matters include maturation of the student as a unique individual, scholarly stimulation, development of the sense of professional identity and responsibility, and a humanitarian attitude. In addition, we will foster an attitude of desire for continuing acquisition of new knowledge as it develops in the medical sciences. The degree of faculty responsibility in these matters and the techniques for exercising responsibility need careful study and formulation.

Since the majority of our medical school student body is drawn from our own University undergraduate college, we have a special opportunity to experiment with programs integrating undergraduate with graduate medical school training in the medical sciences. We intend to exploit this opportunity as fully as possible. In addition to better integration with pre-baccalaureate education, we intend to encouarge some medical students not only to obtain the M.D. degree, but concurrently obtain sufficient basic science work to qualify for a Ph.D. Also, we intend to improve educational facilities for Ph.D. candidates in medically related sciences, so that they may become more aware of clinical problems in medicine.

We intend to give leadership in determining the course of medical education, not only during the traditional four years of the medical school curriculum, but from the time of completion of secondary school until the time of actually starting career patterns.

We intend to provide leadership in continuing education throughout the physician's entire career. The fact that the majority of our graduates practice in this and neighboring states facilitates our task in this regard and provides us with a special challenge and opportunity.

GENERAL INFORMATION

The School of Medicine of The University of North Carolina at Chapel Hill is a distinguished educational institution with a heritage of excellence, an exciting present, and a most promising future. It is situated squarely on the campus of one of the nation's leading institutions of higher learning and is associated with other professional schools in the health areas—including the Schools of Public Health, Dentistry, Nursing, and Pharmacy.

HISTORY

There is evidence that medical instruction was given in Chapel Hill before the Civil War, but the relation of this undertaking to the University is unclear.

The first University-sponsored School of Medicine was established in 1879. Dr. Thomas W. Harris, an honor graduate of the class of 1859 at the University, was Dean and Professor of Anatomy. His only faculty colleagues in the Medical School were Professor A. Fletcher Redd in Chemistry and Professor Frederic W. Simonds in Botany and Physiology. Courses in Anatomy formed the basis of the two-year curriculum. However, Dr. Harris introduced the students to clinical medicine and surgery in the free clinics he established in the community.

Dr. Harris received no salary from the University and therefore maintained a large medical practice. After five years the burden of his practice and his teaching responsibilities became too great. When he resigned in 1885 to devote his time to the private practice of medicine in the growing town of Durham, thirty-seven students had attended the School of Medicine.

The School was reopened in 1890, with Dr. Richard H. Whitehead as Dean and Professor of Anatomy. His superior ability as a scientist and teacher played a major role in establishing the outstanding academic reputation of the School during the following fifteen years. This reputation has persisted through succeeding generations of faculty.

In 1902 University President Francis P. Venable, Dr. Whitehead, and Dr. Hubert A. Royster, Sr., of Raleigh established the University Medical Department at Raleigh. Dr. Royster was appointed Dean and Professor of Gynecology. Despite the inability of the State of North Carolina and the University to finance adequately this expanded operation, the leading physicians in Raleigh—many of whom were already on the faculty of the Leonard Medical College of Shaw University—provided clinical instruction for junior and senior students in the Rex, St. Agnes, and Dorothea Dix Hospitals and the Raleigh Dispensary.

In 1910 the Carnegie Foundation for the Advancement of Teaching published the Flexner Report. Because the University could not afford to upgrade both the preclinical and clinical programs to meet recommendations in the Report, the Department in Raleigh was closed. Of the 76 graduates of the early four-year program, three gained national and

international recognition for their contribution in their special fields of interest.

Dr. William deB. MacNider, class of 1903, returned to the School of Medicine and became Chairman of the Department of Pharmacology and Kenan Professor of Pharmacology. He was named Dean of the University of North Carolina School of Medicine in 1938.

Dr. Marshall G. Guthrie, class of 1904, had a distinguished career with the U.S. Public Health Service. Among his many positions was that of Medical Director for the Office of Indian Affairs.

Dr. John A. Ferrell, class of 1907, served on the International Health Board of the Rockefeller Foundation. After his retirement he became Executive Secretary of the North Carolina Medical Care Commission during the period of North Carolina's greatest hospital expansion.

Dr. Isaac Hall Manning, the first Professor of Physiology and Biological Chemistry, succeeded Dr. Whitehead as Dean in 1905. A member of the medical class of 1895, he and a few able colleagues strengthened the basic science departments and improved the preclinical science teaching programs. The reputation of the School continued to grow, and increasing numbers of students were accepted for transfer to the junior class of leading medical schools in the East, South, and Midwest. Over the years a large majority of these students returned to practice in North Carolina. At the time of the Medical School's expansion to a four-year program in 1954, approximately 25 percent of the physicians practicing in North Carolina had attended the two-year Medical School.

Caldwell Hall—the first University building planned for medical instruction with adequate laboratories, classrooms, and library space—was completed in 1912. Here the School of Medicine functioned until 1938, when it was moved to MacNider Hall, a new, enlarged basic science building. The building now houses the administrative facilities of the School of Medicine.

In 1923 and again in 1937, State commissions were appointed by Governors Cameron Morrison and Clyde Hoey to study the advisability of expanding the School's two-year program to four years. The University, the medical alumni, and many leading citizens of the State actively supported these efforts. However, lack of funds and controversy over the location of the expanded School foiled these early attempts, which eventually led to the establishment of the Duke University Medical School and to the expansion of Wake Forest College's two-year school to the Bowman Gray School of Medicine.

Dr. Walter Reece Berryhill became Dean of the School in 1941. His energy, wisdom, and foresight—coupled with the support of his able faculty colleagues—ushered in a new era of progress for medical education in North Carolina.

In 1947 the North Carolina General Assembly appropriated funds for constructing the 400-bed North Carolina Memorial Hospital, a modest enlargement of the medical science building, and educational and dormitory facilities for a School of Nursing. This brought to a successful

conclusion the statewide effort proposed by Governor J. Melville Broughton in 1944 to improve the health care of North Carolina through State (and subsequently Federal) financial aid for constructing needed hospitals and health centers, increasing medical and health manpower, and expanding the UNC School of Medicine's program to four years.

The North Carolina Memorial Hospital opened in 1952, and 48 members of the first class in the newly expanded program of the Medical School received the M.D. degree in 1954. An exceptionally able group of clinical department chairmen joined the faculty. These men and their associates whom they recruited—together with stronger basic science departments—established the School on a firm basis. The first chairmen of the clinical departments were Dr. Kenneth Brinkhous in Pathology, Dr. Charles H. Burnett in Medicine, Dr. Edward Curnen in Pediatrics, Dr. George Ham in Psychiatry, Dr. Robert A. Ross in Obstetrics and Gynecology, Dr. Nathan A. Womack in Surgery, and Dr. Ernest Wood in Radiology.

There have been over 1500 graduates of the School of Medicine since its expansion. Of those who have completed their residence training and military service, nearly two-thirds are now practicing in North Carolina.

In 1964 Dr. Berryhill retired from the Deanship and began the development of community clinical education programs. He was succeeded by Dr. Isaac M. Taylor. Under Dr. Taylor's leadership, many important changes of progress occurred. Faculty committees carefully re-evaluated the medical school curriculum in light of many of the changes that had occurred in medical education and in the complex roles physicians must now fulfill. A new, interdisciplinary and more flexible curriculum was instituted in 1967, together with a pass-fail, end-of-year examination system. The Morehead Fellowship Program in medicine was started. In 1973, graduates of the school scored second among all schools on Part II of the National Board. During the late 1960's, plans were developed for expanding the physical plant available to the faculty and staff of the medical school and hospital, and funds were obtained through a combination of state, federal and private sources for implementation of these plans. Projects which resulted from these efforts included—Berryhill Hall (the Basic Medical Sciences teaching facility), the Preclinical Education Building, the Clinical Sciences Building, the Bed Tower and the Spencer Love Clinics of the North Carolina Memorial Hospital.

In mid-1971 the General Assembly approved legislation creating a Board of Directors for the North Carolina Memorial Hospital and separating it organizationally from the administration of The University of North Carolina at Chapel Hill. The Board consists of twelve (12) individuals, nine (9) of whom are appointed by the Board of Governors and three (3) ex officio University officials, including the Vice Chancellors at Chapel Hill for Finance and Health Sciences and the Medical School Dean. Dr. Taylor remained as Dean until June 30, 1971. He was succeeded September 1, 1971, by Dr. Christopher C. Fordham III, the present Dean.

During the past five (5) years many important changes have occurred in the academic Medical Center in Chapel Hill. There has continued to be substantial growth in the educational programs. The size of the medical student body has increased from approximately 340 students in the 1970-71 year to 531 students in the 1975-76 year. The faculty has increased in size to almost 500 full-time members, and this increase has been characterized by the appointment of remarkably able scholars and physicians joining the faculty at junior and senior levels during this time. There has been significant growth in the graduate basic medical education programs, the post doctoral clinical training, and in the medical allied health areas. The overall operating budget of the Medical School has more than doubled since 1970-71.

Relationships between the Medical School and the North Carolina Memorial Hospital have been strong and collegial, and much progress has been made in the organizational patient care effort. Mr. John Danielson became the first General Director of the North Carolina Memorial Hospital appointed by the Board of Directors in early 1972 and was succeeded by Mr. Dennis Barry in January of 1975. The quality of leadership provided by Mr. Danielson and Mr. Barry has enabled the organized medical staff, headed by Dr. William Cromartie until January of 1974, when he was succeeded by Dr. William Easterling, to participate in an increasingly effective way with the hospital administration in seeking the highest quality patient care enterprise possible. It is well known that an academic medical center is an extremely complex organization, and a good working relationship between the hospital and medical school, such as that which now exists, is of paramount importance.

When the new health manpower legislation of 1971 created funding for the development of Area Health Education Centers, as recommended by the Carnegie Commission, the university was in a favorable position to seek Federal support to initiate such a program, because of the good work done in earlier years by Dr. Berryhill and others in establishing strong community hospital relationships. Mr. Glenn Wilson joined the Medical School faculty in 1970 as Associate Dean for Community Health Services, and it was through his good offices and efforts that the university achieved the largest Federal grant in the AHEC program, and the single largest contract in the history of the university, amounting to $8.5 million for five (5) years. From the initial three (3) Area Health Education Centers in Charlotte, Wilmington, and the Governors Area L (Tarboro, Rocky Mount, Wilson, and Roanoke Rapids), the program has grown toward the development of a statewide system of Area Health Education Centers, nine (9) in number, embracing the full participation of our sister health science schools in Chapel Hill as well as the Duke and Bowman Gray Medical Schools. Programs at the regional centers are designed to develop health manpower training to meet the needs of the 10 to 12 county regions represented by the center. The teachers at each of the centers represent a combination of volunteer, part-time, and full-time faculty, and are broadly based in the health professions. Included among the programs are electives

for senior medical students, some rotations for junior medical students, and house staff training in the primary care specialties of Family Medicine, Pediatrics, Internal Medicine, and Obstetrics-Gynecology. The program is supported by the five (5) twin engine airplanes operated by the Medical Air Transportation Service, under the leadership of Col. Earl Provancha. This imaginative regionalized program of Health Professional Education, related intimately to and supported by the academic medical centers of the state, has promise for helping to solve North Carolina's problems of access to good medical care through better distribution of physicians and other health professionals, both geographically and by specialty.

In 1972 the Medical Allied Health Programs in the School of Medicine were organized into a full fledged academic department under the leadership of its first Chairman, Dr. Robert Crounse. It is evident that a great deal of progress has been made in that area. In 1973, the clinical laboratories of the North Carolina Memorial Hospital were centralized under the leadership of Dr. William McLendon, Professor of Pathology. Here too, great progress has been made.

As the academic Medical Center has grown in size and complexity, there has been increasing concern that the scientific medicine practiced there should be properly leavened with human sensitivity, compassion, and genuine continuing interest in people and their families. The North Carolina Memorial Hospital has had the reputation of being a warm, personal kind of place despite its obligation and capacity to remain at the cutting edge of medical science. Concern over the human value issues in the patient care setting lead the Dean to appoint a committee on Human Values in Medical Education, Chaired by Dr. Trevor Hughes, which has been at work for some months.

In late 1975, the School of Medicine signed a Dean's Committee relationship with the Fayetteville Veterans Administration Hospital. This will give the University of North Carolina an opportunity to work with the Veterans Administration Hospital there in developing broadly based health professional educational and research programs. In this effort, there was strong participation by the Schools of Dentistry, Nursing, Pharmacy, and Public Health.

A great deal more could be said in this brief history of the School of Medicine, but the reader should draw from these remarks the flavor of an institution which is strongly based in scholarship, fundamentally committed to the scientific medicine of the present and future, and one which has found ways to express these commitments through expanding, innovative educational programs in Chapel Hill and throughout the state. Noteworthy achievements of this nationally and internationally prominent faculty include the important balance between scholarship in the generation of new knowledge and its transmittal to students, house staff and practicing professionals for the benefit of the health and medical care of the citizens of North Carolina and the nation.

STUDENT BODY—THE WHITEHEAD MEDICAL SOCIETY

The medical student body or Whitehead Medical Society was organized in 1908 and named in honor of Richard H. Whitehead, M.D., whose standards and leadership as dean established the reputation of the School. The governing body is the Whitehead Council composed of elected officers, representatives and the class presidents. The Society sponsors Orientation, the Whitehead Lecture to the entering freshmen, various other speakers, symposia and social activities throughout the year. Student participation in curriculum review, admission and many other ongoing activities within the School is encouarged as is involvement in important activities outside the physical confines of the School, e.g., local, state, national, international medical projects and organizations, and liaisons with the other biological sciences, physical sciences and the humanities. The Society maintains its own Honor Court. A meaningful relationship with the faculty, a high degree of fellow feeling and individual adherence to a high standard of integrity, social conscience, and academic excellence has long characterized the Society.

FACULTY

The faculty of the School of Medicine is a distinguished one, including among its ranks nationally known investigators, teachers, and clinicians. The full-time faculty numbers approximately 500. Although the research programs in the School of Medicine are wide-ranging in scope and vigorously pursued by faculty members at all levels, the teaching program and the students themselves remain central to the mission of the School. The atmosphere is informal and conducive to an exchange of ideas and information among groups at all levels.

STUDENT-FACULTY ADVISORY COUNCIL

Student officers, representatives of student organizations, and faculty advisors compose the Student-Faculty Advisory Council, which meets monthly to discuss matters of mutual concern. This Council, chaired by one of the class advisors, greatly facilitates the consideration of problems jointly shared by students, faculty, and administration and serves as an excellent means of communication.

Members, 1975-1976

James A. Bryan II, Professor of Medicine and Family Medicine, Advisor to the Class of 1979, and Chairman

John M. Sorrow, Jr., Associate Dean for Student Affairs, Professor of Medicine, Advisor to the Whitehead Society

Marion Phillips, Assistant Dean for Student Affairs

William E. Bakewell, Jr., Professor of Psychiatry, Advisor to the Class of 1976

Jeffry J. Andresen, Assistant Professor of Psychiatry, Advisor to the Class of 1977
H. R. Lesesne, Assistant Professor of Medicine, Advisor to the Class of 1978
Noel McDevitt, Assistant Professor, Surgery and Pathology, Advisor to the Class of 1979
Adrian Long, President, Whitehead Society and Representative to Association of American Medical Colleges
Keith Ramsey, Vice President, Whitehead Society, Representative to Graduate and Professional Student Association
Gregory Strayhorn, Secretary, Whitehead Society
David Warshauer, Treasurer, Whitehead Society
Robert Shapiro, President, Class of 1976
William Fulkerson, President, Class of 1977
Michael Parker, President, Class of 1978
Steve McKinnon, Representative, Class of 1979
James Goldman, President, UNC Chapter, American Medical Student Association
Cornelius Cathcart, President, UNC Chapter, Student National Medical Association

ASSOCIATIONS

Medical Alumni Association

The alumni of the University of North Carolina School of Medicine, active faculty members, and those who have served on the house staff of the North Carolina Memorial Hospital are eligible for membership in this Association. The Annual Alumni meeting is held each spring. The Association is organized into districts throughout the state and district meetings are held during the year.

The Medical School Bulletin is published quarterly and serves as one means of communicating with the Alumni. The Association works with the Medical Foundation of North Carolina, Inc. in support of the School of Medicine.

The Associate Dean for Continuing Education and Alumni Affairs is responsible for the administration of the alumni office which is staffed by an Alumni Secretary and an Assistant to the Associate Dean. An Alumni Office Advisory Committee is supportive of alumni activities. The office is located at 226 MacNider Building.

American Medical Student Association

Membership in the University of North Carolina Chapter of the American Medical Student Association is available to medical students on a voluntary basis. AMSA is a national organization which is extremely active in all aspects of student involvement in the field of Medicine. The local chapter works in close conjunction with the Whitehead Society in

order to give the student not only a feeling for the local problems involved in medical practice but also an understanding of many of the same problems on a national or even a worldwide level.

Student National Medical Association

The Student National Medical Association was established in 1964 as an affiliate of the National Medical Association. The University of North Carolina Chapter was founded in 1971. Membership in SNMA is voluntary and does not supplant any other organization. The local chapter is involved in particular areas of specific interest to black students. In this role, close liaison is maintained with the Whitehead Society and the AMSA. Members of SNMA are also members of these latter student organizations, providing a wider opportunity for understanding of local and national health problems.

Medical Partners Association

The Medical Student Wives Association was organized in 1948 in order to form a group, held together by common professional interests, to serve both the medical school and the community through various service projects and to promote fellowship through social functions. This group meets regularly for programs of common interest and learning. In 1975 the organization became the Medical Partners Association to more appropriately include wives and husbands of medical students.

Medical Parents Club

The Medical Parents Club consists of the parents of students and alumni of the School of Medicine of The University of North Carolina at Chapel Hill who desire to be members. The objectives of this organization are (1) to generate and maintain the interest of parents of current, future, and former students in the Medical School; (2) to inform these parents about the Medical School, its background, present work, and future plans; and (3) to serve to guard and to advance the School of Medicine.

This organization serves as Trustee for the Student Emergency Loan Fund, the W. Reece Berryhill Scholarship Fund, the Charles Burnett Scholarship Fund and the Isaac M. Taylor Scholarship Fund.

PHYSICAL FACILITIES

Medical School buildings include MacNider Hall, constructed in 1938 with additions in 1952. In 1963 the Medical Sciences Research Building was completed. These buildings were used to house the offices and laboratories of the Medical School personnel. A new research building, the six-story Swing Building, was occupied early in 1970. The Health Sciences Library moved into its modern, spacious facility which was completed in the fall of 1970. The Biological Sciences Research Center including the Child Development Institute was completed and occupied in early 1971.

The completion of other major buildings in the health sciences complex in the late 1960's left vacant buildings which previously housed nurses' dormitories and classrooms and the outpatient clinic. These areas have recently been renovated as office areas for the School of Medicine and for the Hand Rehabilitation Center.

The Berryhill Basic Medical Sciences Building, occupied in 1971, houses teaching facilities for the medical students within its eight-story structure. Students have the advantage of a new modern teaching structure which provides well-equipped multidiscipline laboratories for small groups. Each student has his own laboratory carrel with ample storage for supplies and equipment throughout the year. A stable home base is thus provided for the student to operate within. Since the space is permanently assigned to the student for the year, he enjoys the freedom in time to pace his own work and studies throughout each day. This building also houses a snack bar, a large student lounge, and four auditoria equipped with comprehensive audiovisual aids. Within the building also are multipurpose laboratories for the Basic Science Departments in the School of Medicine to teach other students in the health sciences for which they have some responsibility. The Division of Laboratory Animal Medicine is also housed in this building.

The Preclinical Educational Facilities Building was completed in 1973. This building houses administrative, service, and research space for the department of Pathology, the Office of the N.C. State Medical Examiner, and the North Carolina Memorial Hospital Mortuary Facilities. The Clinical Sciences Building was completed in 1975. This facility provides research and administrative space for several clinical departments. In addition, four limited life buildings have been constructed; Building A, which houses clinical research space, Building B, which houses the program in Pharmacology-Toxicology, Building C, which houses units of the Environmental Protection Agency, and Building D which houses programs in Anatomy.

CLINICAL FACILITIES

Patient facilities of the School of Medicine include the University's 450-bed and 37-bassinet North Carolina Memorial Hospital, the South Wing—a Psychiatric inpatient and outpatient center, Gravely Sanatorium—a 100-bed pulmonary disease hospital, and a 20-bed Clinical Research Center. Outpatient clinics, including emergency room services and diagnostic laboratory and radiological facilities, are located in a large new four-floor structure, the J. Spencer Love Clinic Building, which was dedicated in 1969.

A new 206-bed and 20-bassinet tower addition to the North Carolina Memorial Hospital, over the J. Spencer Love Clinic Building was activated in August 1975.

In an effort to provide a broader educational base than that which currently exists in the more highly specialized university referral medical

centers for undergraduate and graduate medical students, to improve opportunities for continuing education of the physicians in practice, and in preparation for the increasing enrollment of medical students and those in health-related professions, educational programs are available or are being developed in the following community hospitals of the state under the auspices of the Area Health Education Centers Program. Those hospitals where students are assigned have full time University of North Carolina faculty as well as clinical faculty composed of physicians in private practice. Varied experiences in office, hospital, and clinic practice are available in both required and elective rotations for third and fourth year students. The hospitals are:

Charlotte Memorial, Charlotte; Moses Cone, Greensboro; Wake Memorial, Raleigh; New Hanover Memorial, Wilmington; Tarboro Clinic and Edgecombe General, Tarboro; Nash General, Rocky Mount; Halifax General, Roanoke Rapids; Wilson Memorial, Wilson; Cape Fear Valley, Highsmith-Rainey Memorial, Womack Army and Veterans Administration, Fayetteville; Memorial Mission and St. Joseph's, Asheville; Pitt County Memorial, Greenville; Wayne County Memorial, Goldsboro; Lenoir Memorial, Kinston; Craven County, New Bern; and Albemarle, Elizabeth City.

LIBRARIES

The Division of Health Sciences Library located adjacent to the MacNider Building has an excellent collection consisting of over 150,000 volumes and 2,000 current periodicals. A number of computerized bibliographic retrieval systems, including Medline and Toxline are available. The University Library, with a collection in excess of 1,000,000 volumes, is also available to the student body and faculty. The Health Sciences Library Staff is headed by Miss Myrl Ebert, Librarian, and includes Miss Dorothy Long, Assistant Librarian and Chief Reference Librarian; Mrs. Mary Horres, Circulation Librarian; Miss Mary Ellen Darst, Reference and Interlibrary Loan Librarian; Mrs. Mary Metter, Computer Services; Mrs. Rosalie M. Massengale, Head Cataloger; Mrs. Mary Thomas, Acquisitions; with twenty other staff members eager and competent to serve readers.

MEDICAL ILLUSTRATION

Medical Illustration is a service department for the School of Medicine and North Carolina Memorial Hospital, offering art and photographic services to the faculty and staff. Services are rendered in graphic design, charts and graphs, anatomical art, exhibit design, self-instructional slide packages, 16mm film animation, still and motion picture photography, photomicrography, black and white, and color film processing (color Ektachrome 35mm only). This division of the School of Medicine is located in Room 239 MacNider Hall, and is administered by the Dean's Office, School of Medicine. Director is Charles L. Wright.

HEALTH AND RECREATION

The University Health Service is operated by a group of staff physicians headed by Dr. James A. Taylor, University Physician. The Infirmary is adjacent to the North Carolina Memorial Hospital.

The University gymnasium, swimming pools, and the large athletic fields provide ample facilities for exercise and recreation, all under the supervision and direction of a well-organized Department of Physical Education.

VETERANS AFFAIRS

Veterans affairs and claims for veterans benefits are handled by the Veterans Advisor, 105 Hanes Hall, The University of North Carolina at Chapel Hill.

HOUSING

The primary objective of the Department of University Housing at Chapel Hill is to provide a physical and psychological atmosphere conducive to each and every student having opportunity to develop to the utmost his or her personality, ability and sensitivity. The University provides residence hall accommodations for approximately 6600 registered students—undergraduate, graduate and professional men and women. Three hundred and six apartments are available for married students.

Information regarding residence hall accommodations is available by writing to: Department of University Housing, Contracts Office, Carr Building, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Information regarding married student housing is available by writing to: Manager, UNC Married Student Housing, Odum Village, Branson Street, Chapel Hill, North Carolina 27514.

GENERAL UNIVERSITY REGULATIONS AND POLICIES

THE HONOR COUNCIL

Persons enrolled in the School of Medicine are members of the student body of the University of North Carolina, and are responsible for conducting themselves in conformity with the moral and legal restraints found in any law-abiding community. General regulations of the University relating to student conduct apply to all students—graduate, undergraduate, or professional. All students are subject to the regulations of Student Government under the Honor Code and Campus Code.

The medical student body has its own honor council which functions within the framework of the University Student Government and the Student Council. It consists of the Whitehead Council and is chaired by the Vice President of the medical student body.

POLICY OF THE UNIVERSITY ON EQUAL OPPORTUNITY

Students of all races are equally welcome in the University of North Carolina. Persons of all racial backgrounds may apply for and accept admission, confident that the policy and regular practice of the institution will protect them from discrimination.

The University of North Carolina at Chapel Hill is committed to the principle of equal opportunity. It is the policy of this University not to discriminate on the basis of race, sex, color, national origin, religion or handicap with regard to its students, employees, or applicants for admission or employment. Such discrimination is also prohibited by federal law. Any complaint alleging failure of this institution to follow this policy should be brought to the attention of the Assistant to the Chancellor.

AUTOMOBILE REGULATIONS

Every student at the University who owns and/or operates an automobile or other motor vehicle in or around Chapel Hill is required by University regulations to register it with the Traffic Office. Motor vehicle registration is made each school year during the academic registration procedure. Motor vehicles acquired after the time of enrollment must be registered at the Traffic Office within forty-eight hours after the time of acquisition. A motor vehicle registration sticker is for registration purposes only and should not be construed as a parking permit. In no sense does the sticker guarantee the student a parking space. However, students in residence halls may have a reasonable expectation of finding a parking space within the zone in which their registration sticker is valid.

A complete set of Rules and Regulations Governing Parking and Traffic will be furnished to each student at the time of the registration of his motor vehicle.

RESIDENCE STATUS FOR TUITION PAYMENT[1]

General. Every applicant for admission is required to make a statement as to his or her length of residence in North Carolina. The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition a legal resident must have maintained his domicile in North Carolina for at least 12 months immediately prior to his classification as a resident for tuition purposes. In order to be eligible for such classification, the student must establish that his or her presence in the State during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of mere temporary residence incidence to enrollment in an institution of higher education.

Domicile. Domicile means one's permanent dwelling place of indefinite duration, as distinguished from a temporary place of abode; synonymous with "legal residence."

Burden of Proof and Statutory Presumptions. The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification. For a student to be classified a resident for tuition purposes, the balancing of all the evidence must produce a clear preponderance of the evidence supporting the assertion of in-state residence. Proof of residential status is controlled, initially, by two statutorially prescribed and complementary presumptions, which are stated in terms of prima facie evidence:

a. If the parents or court-appointed legal guardian of the student (without reference to the question of whether the student is a minor or an adult) are not domiciliaries (legal residents) of North Carolina, under the Statute this fact constitutes prima facie evidence that the student is not a domiciliary (legal resident), of North Carolina, unless the student has lived in this State the five consecutive years prior to enrolling or re-registering. The student must assume the burden of rebutting the prima facie showing by producing evidence that he or she, independently, is in fact a domiciliary (legal resident) of North Carolina, in spite of the nonresident status of his or her parents;

b. Conversely, if the parents of the student are domiciliaries of North Carolina under the Statute, this fact constitutes prima facie evidence that the student is a domiciliary of North Carolina. This prima facie evidence may also be rebutted by other evidence of legal residence. If the student has neither parents nor legal guardian, the prescribed prima facie evidence rule cannot and does not apply.

---

[1] The information in this section comes from three sources: (i) North Carolina General Statutes, Sec. 116-143.1; (ii) *A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes, July 1975;* (iii) Chancellor's Rules and Procedures for Residence Classification of Students for Tuition Purposes.

Statutory Exceptions

a. *Grace Period.* By virtue of the provisions of G.S. 116-143.1, if a student has been properly classified as a resident for tuition purposes, a change in that student's state of residence thereafter does not effect in all cases an immediate automatic loss of entitlement to the in-state tuition rate. To qualify for the grace period, the following conditions must be satisfied:

1. The student must have been properly classified as a resident for tuition purposes, on the basis of a valid finding that the student in fact was a legal resident of North Carolina and had been such for the requisite twelve-month period prior to classification;

2. At the time of subsequent change of legal residence to a state other than North Carolina, the student must have been enrolled in a public institution of higher education in North Carolina.

The extent of this grace period, during which the in-state rate is applicable in spite of the fact that the student is not a legal resident of North Carolina, is twelve months from the date of change in legal residence, plus any portion of a semester or academic term remaining, as of the expiration date of the twelve-month period, in which the student is enrolled.

b. *Qualifying Periods for Spouses.* By virtue of the provisions of G.S. 116-143.1, the prescribed twelve-month period of legal residence required for entitlement to classification as a resident for tuition purposes may be shortened on the basis of the marital status of the student, in specified circumstances. If a student otherwise can demonstrate compliance with the fundamental statutory requirement that he or she be a legal resident of North Carolina, the second statutory requirement relating to duration of residence may be satisfied derivatively, in less than twelve months, by reference to the length of the legal residence of the spouse of the student, if the spouse has been a legal resident of the State for the requisite twelve-month period.

Married Persons. The domicile of a married person, irrespective of sex, is determined by reference to all relevant evidence of domiciliary intent. No person shall be precluded, solely by reason of marriage to a person domiciled outside of North Carolina, from establishing or maintaining legal residence in North Carolina. No person shall be deemed, solely by reason of marriage to a person domiciled in North Carolina to have established or maintained a legal residence in North Carolina. The fact of marriage and the place of domicile of his or her spouse shall be deemed relevant evidence to be considered in ascertaining domiciliary intent.

Minors. A minor is a person who has not reached the age of eighteen years. The domicile of a minor is that of the father. With a few exceptions noted below, this presumption is virtually irrebuttable. If the father is deceased, the domicile of the minor is that of the surviving mother. If the parents are divorced or legally separated, the domicile of the minor is that of the parent having custody by virtue of a court order; or, if no custody has been granted by virtue of court order, the domicile of the minor is that

of the parent with whom he lives; or, if the minor lives with neither parent, in the absence of a custody award, the domicile of the minor is presumed to remain that of the father. Even though a person is a minor, under certain circumstances the person may be treated by the law as being sufficiently independent from his parents as to enjoy a species of adulthood for legal purposes. The consequences, for present purposes, of such circumstances is that the affected person is presumed to be capable of establishing a domicile independent of that of the parents; it remains for that person to demonstrate that a separate domicile in fact has been established. The circumstances recognized as having the potentially emancipating effect are:

a. Marriage of the minor person;

b. Parental disclaimer of entitlement to the minor's earnings and the minor's proclamation and actual experience of financial independence from his parents, with the actual establishment and maintenance of a separate and independent place of residence.

Aliens. An alien holding a visa which will permit eventual permanent residence in the United States is subject to the same considerations as a citizen. An alien holding a visa which will not permit eventual permanent residence in the United States (for example, a student visa) cannot be classified as a resident.

Military Personnel. The domicile of a person employed by the Federal Government is not necessarily affected by assignment in or reassignment out of North Carolina. Such a person may establish domicile for himself by the usual requirements of residential act plus intent. No person shall lose his in-state residence status solely by serving in the armed forces outside of the State of North Carolina.

Property and Taxes. Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status. A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) shall be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual matriculation. A residential classification once assigned (and confirmed pursuant to any appellate process invoked) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic calendar.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial Residential Classification for tuition purposes.

The transfer into or admission to a different component of the same institution (e.g., from an undergraduate to a graduate or professional program) is not construed as a transfer from one institution to another and, thus, does not by itself require a reclassification inquiry unless (1) the

affected student requests a reclassification inquiry or (2) the transfer or enrollment occurs following the lapse of more than one quarter, semester, or term during which the individual was not enrolled as a student.

Responsibility of Students. Any student or prospective student in doubt concerning his residence status must bear the responsibility for securing a ruling by stating his or her case in writing to the admissions officer. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the Office of Admission of these circumstances in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

It is the responsibility of the student to pay tuition at the rate charged and billed while an appeal is pending. In effect, the student who is classified as a nonresident at the time of tuition billing should pay the nonresident rate. Conversely, if a student is classified as a resident at the time of billing, he or she should pay the resident rate.

Appeals of Rulings of Admission Officers. A student appeal of a classification decision made by an admissions officer shall be filed by the student with that officer in writing and shall be transmitted to the Residence Status Committee by that officer, who shall not vote in that Committee on the disposition of such appeal. The student shall be notified of the date set for consideration of the appeal and, on request of the student, he or she shall be afforded an opportunity to appear and be heard by the Committee. Any student desiring to appeal a decision of the Residence Status Committee shall give notice in writing of that fact within 10 days of receipt by the student of the decision of the Residence Status Committee, and the basis for such appeal, to the Chairman of the Residence Status Committee, and the Chairman shall promptly transmit the appeal to the State Residence Committee.

A complete explanation of the statute and the procedures under the statute is contained in *A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes.* This manual and other information concerning the application of this law is available for inspection in the Admissions Offices of the University.

All students are responsible for knowledge of the contents of the statute and the *Manual.*

NOTICE ON "DIRECTORY INFORMATION" TO ALL STUDENTS OF THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

The University of North Carolina at Chapel Hill has routinely made public certain information about its students. Some typical ways this has been done include the following: names of students who are selected by the various honorary societies, who receive scholarships, who make the

Dean's List, who hold offices, or who are members of athletic teams are frequently made public. To facilitate campus communication the University annually publishes the *Campus Directory.* Some professional and graduate school student groups publish directories of students in their departments or schools. The annual commencement program publishes the names of persons who have received degrees during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following categories of information: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student *limited* to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing. The *Campus Directory* for example, publishes only names, addresses and telephone numbers.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of Records and Registration, The University of North Carolina at Chapel Hill of this fact in a signed and dated statement specifying items that are not to be published. This notice must be received by the Office of Records and Registration by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment, and by the end of *each* fall registration period thereafter.

QUALIFICATIONS FOR ADMISSION

Because of the limited number of places available in the entering classes, medical schools unfortunately cannot admit all worthy students. The Admissions Committee of the University of North Carolina carefully evaluates the individual qualifications of its applicants in an effort to select the candidates with the greatest potential for accomplishment in one of the many careers open to medical school graduates. Students who hope to enter medical school should recognize the competitive nature of the task before them and seek to provide the Admissions Committee with solid evidence of academic achievement and personal qualifications.

PROCEDURE FOR APPLICATION

1. The School of Medicine is a participant in the American Medical College Application Service. Application forms can be obtained from American Medical College Application Service, Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D. C. 20036 (tel. 202-466-4666). They should be completed according to instructions and mailed directly to the AMCAS office as soon thereafter as possible. Applications for the class entering August 1977 must be filed with AMCAS before December 15, 1976.
2. The AMCAS application will be used as a preliminary screening form by the UNC School of Medicine. Immediately upon receipt of the application, the applicant will be notified and in selected cases requested to complete a supplementary application which includes the following:
   a. An evaluation from the Premedical Advisory Committee or, when no such report is available, two letters of recommendation from faculty members (at least one science instructor) who are well acquainted with the applicant and his work.
   b. A small photographic portrait.
   c. A non-refundable, non-deductible application fee of $10.00
3. The Medical College Admission Test is a requirement for completing the final application to the Medical School. The test must be taken no later than the fall prior to the entering class for which the student is applying. Application for the test is made directly to the American College Testing Program, P.O. Box 468, Iowa City, Iowa 52240. Application forms may also be obtained from your pre-med advisor. It is better for the applicant to have completed as many of the recommended courses as possible before taking the Medical College Admission Test.
4. Personal interviews with members of the Admissions Committee or their representatives are carried out on invitation prior to final processing of the application. Applicants will be notified if they are to be invited for interviews.
5. Early Decision Plan. The Admissions Committee will follow the procedures as outlined in the AMCAS instructions.

All correspondence should be directed to the Committee on Admissions, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

All admissions to the School of Medicine are decided by the Dean and the Committee on Admissions. The Dean and the Committee reserve the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of medicine.

Selected applicants will be required to make a deposit of $25 in order to hold their places in the class. If the applicant registers in August, this amount is applied to his tuition and fees; if he fails to register in August or to withdraw his application, his deposit is forfeited.

COLLEGE PREPARATION[1]

A minimum of 96 semester hours or equivalent of acceptable college work from an accredited undergraduate institution is required. Although the premedical curriculum is flexible, experience indicates that proficiency in certain fields of knowledge is needed for optimal performance in the medical curriculum.

English: Facility in oral and written communication is essential. Course requirements can be met by that which is ordinarily required for an undergraduate degree (a minimum of 6 semester hours).

Chemistry: Training in basic principles of chemistry, including inorganic, organic and physical chemistry with laboratory experience in methods of qualitative and quantitative analysis is recommended. Generally this requires courses involving about 16 semester hours.

Physics: Eight semester hours including laboratory work are recommended.

Biology: At least eight semester hours of biology with laboratory and including vertebrate zoology or other advanced courses in biology are generally required. Courses in genetics and cell biology are strongly recommended.

However, in general, undergraduate students should explore their own scholarly interests with emphasis on the quality of work and depth of interest leading to a baccalaureate degree. The faculty recognizes the value of such subjects as the social sciences, foreign languages and advanced mathematics in providing the broad background desirable for students and practitioners of medicine.

---

[1] A few students with superior academic credentials may qualify for a B.S. in Medicine Degree. Eligibility for this degree is dependent upon (a) admission to the School of Medicine, (b) completion of at least the last year of premedical work at the University of North Carolina, (c) evidence of satisfactory performance in the first year of the School of Medicine. Specific course requirements for this degree may be obtained from the College of Arts and Sciences.

ADMISSION TO ADVANCED STANDING

A student who wishes to apply for advanced standing by transfer from another medical school should write to the Director of Admissions, University of North Carolina School of Medicine, Chapel Hill, North Carolina 27514, stating reasons for desire to transfer. Places for transfer students are only occasionally available and only those applicants with compelling reasons for transfer who are in good standing and have a recommendation from their Deans will be considered.

EXPENSES[2]

Tuition and Fees	*N. C. Resident*	*Non-Resident*
Tuition–Semester or Summer (Based on instructional unit)		
A. Semester	$ 448.50	$1,326.50
B. Elective, per unit (4 weeks)	$ 95.71	$ 328.57
C. Clerkship per unit (6 weeks)	$ 93.80	$ 322.00
D. Clerkship per unit (12 weeks)	$ 194.30	$ 667.00
Fees		
A. Fall or Spring semester	$ 113.50	$ 113.50
B. Summer only registrations		
1. Four weeks	$ 30.50	$ 30.50
2. Six weeks	$ 40.50	$ 40.50
3. Twelve weeks	$ 81.00	$ 81.00

Living Expenses

While it is understood that the needs and resources of individuals will vary, these are considered reasonable living expenses in the Chapel Hill area (including food, rent, clothing, laundry, insurance, ordinary medical/dental expenses, utilities, personal expenses, car and/or travel, etc.):

Married students: $450 per month; $60 per month additional per child.

Single students: $275 per month.

Additional estimated expenses

First Year:

Books, laboratory manuals, laboratory costs $300.00

Instruments–variable, depending upon microscope cost

Rental binocular microscopes will be available to all students at the rate of $50 per year. Purchase price variable $200-$600.

Microscope rental fee 50.00

Instruments 125.00

[2]The University reserves the right to make, with the approval of the proper authorities, changes in any fees at any time. Tuition rates shown are effective Fall Semester 1976.

Second Year:

Books, laboratory manuals, laboratory coats	$200.00
Instruments	100.00
Microscope rental fee	50.00

Third Year:

Books, uniforms	$250.00

Fourth Year:

Books, uniforms	$200.00

Tuition and fees are due prior to each announced registration date and may be paid at the University Cashier's Office in Bynum Hall. If for any reason a student is not responsible for payment of his bill, he must notify the University Cashier before registration, so that bills may be sent to the proper person or agency. Any other financial arrangements or deferments should be directed to the Associate Dean for Student Affairs of the Medical School prior to registration.

Registration and enrollment in this School of Medicine and payment of appropriate tuition and fees will be necessary for courses for which a student wishes to receive credit toward the M.D. degree. This includes clerkships and electives arranged at other institutions in this country or abroad as well as at the School of Medicine in Chapel Hill.

Microscopes

Each student must provide himself/herself with a microscope of standard manufacture. Either a monocular or binocular instrument is satisfactory, but a binocular microscope is preferable. The microscope must have the three standard (achromatic) objectives: Low power (10X), high-dry (ca. 40X to 45X) and oil immersion (ca. 100X). A scanning objective (ca. 4X) will be highly useful. Standard 10X (Huygenian) eyepieces and a standard (Abbé) condenser are recommended. A standard illuminator is needed, and a mechanical stage is most helpful. If a student wishes to use an old microscope, the School of Medicine will inspect it for the student and advise him/her about its suitability. Several individuals and firms will undoubtedly mail you literature about new microscopes.

Rental microscopes are available to first and second year medical students at a fee of $50 per year. Rental microscopes are modern, binocular, four-objective, fully equipped instruments, but without carrying cases. A microscope has been reserved for each entering student and will be issued to you at laboratory Check-In upon payment of the fee.

If you wish to have a microscope inspected bring it to Room 314 Berryhill Hall (Basic Medical Sciences Building) at the earliest possible date. If possible, do not purchase a microscope prior to its inspection.

FINANCIAL AID

The Medical School Student Aid Committee, with the approval of the Dean, is responsible for recommending recipients of scholarships (grants-in-aid) and for approving loans. The Student Aid Officer of the School of Medicine is available by appointment to discuss financial matters with students throughout the year. Mr. William M. Geer, Director of Student Aid at the University at Chapel Hill, 300 Vance Hall, is in overall charge of the entire student financial assistance program at Chapel Hill.

The University of North Carolina at Chapel Hill has long upheld a tradition of helping individuals of modest financial means to reach their full potential by completing their education. In accord with this tradition, financial assistance is available in a variety of forms at the Medical School of the University to supplement funds provided by family, from savings, and through the student's summer work. No qualified student who sincerely desires a medical education and who has financial need should hesitate to apply for assistance.

The applicant must be a full-time medical student in good standing and registered in the University of North Carolina School of Medicine. Any student taking more than 50% of the full academic load for credit during the fall or spring semester will be considered a full-time student for that semester. Any student taking 50% or less of the full academic load for a semester will be considered a full-time student only for the time he is taking work for credit, i.e., a student who is taking one or two electives for credit during a semester will be considered a full-time student only during the time he is taking those electives and would be eligible for aid only during that period of time. A student, however, taking three electives for credit in a semester would be considered a full-time student for the entire semester and aided fully for the entire semester. In the summer enrollment period a student eligible to receive aid will be considered a full-time student only during the time that he is taking Medical School work for credit and will receive aid only during that period of time.

The need for financial assistance must be demonstrated. Financial need of an applicant whether married or single will be determined by evaluation of the total resources available to him. The applicant and his family are expected to assist all they can from personal resources. Applicants will be requested to present a proposed budget for the period for which they are applying for aid and should reduce their expenses to reasonable amounts. Although it is obvious and understood that each budget will vary and will have to be assessed on individual merit, the University has established what it considers reasonable figures for living expenses in the Chapel Hill area for both married and single students and any budget exceeding these figures must be justified by unusual circumstances.

Funds needed to repay existing obligations outside of the ordinary academic and subsistence expenses cannot be made available through University resources.

If a student receives funds from a source outside the University and also expects to receive University financial aid, the student must apply these outside funds to educational expenses accepted by the University.

PROCEDURE FOR APPLYING

The necessary forms for application for financial assistance and instruction for their submission may be obtained from: Student Aid Office, Room 232 MacNider, UNC School of Medicine, Chapel Hill, North Carolina 27514.

The same application forms will be submitted for both loans and scholarships (grants-in-aid) and all students who apply for scholarship (grant-in-aid) assistance should also apply for a loan at the same time.

DEADLINES—All students who anticipate that they will need financial assistance during an academic year should have their applications filed with the Student Aid Office, UNC School of Medicine, Chapel Hill, North Carolina 27514, by the deadline published by the Medical School Student Aid Committee. Late applications for loans will be accepted, however, if circumstances make it impossible to submit an application prior to the deadline or if unexpected need arises at a later date.

A statement advising disposition of each application will be forwarded to the applicant as soon as possible, usually sometime during the summer. A summer address, therefore should be included in the application and the Student Aid Officer should be advised of any change of this address.

SCHOLARSHIPS

A certain number of scholarships based on merit and without consideration of financial need are awarded to students in the Medical School. (For current merit award recipients, see Honors and Awards, page 119.)

The majority of medical school scholarships are essentially grants-in-aid and are awarded primarily for financial need. The number of these scholarships awarded and the amount of an individual award will depend upon the funds available, the need of the individual applicant, and the number of applicants qualifying for financial assistance.

Funds for these scholarships originate from the following sources:

1. Alumni gifts to the Medical School;
2. Individuals and families who have established scholarships;
3. Foundations and business firms;
4. General scholarship funds of the University of North Carolina;
5. Health Professions Scholarship Program.

All medical school classes are eligible to receive financial assistance from grants-in-aid scholarships. These scholarships, however, are not intended to be used as the sole means of financial help and in general the eligible student needing financial aid will be expected to apply for loan assistance as well.

When an award has been made, the recipient will be notified by letter and the funds will be deposited to his account with the University Cashier.

Renewal of scholarships is not automatic from year to year, and a renewal application must be submitted each year by the deadline prescribed.

Health Professions Scholarship Program. Beginning with the class which entered in the Fall of 1966, the School of Medicine has participated in the Health Professions Scholarship Program. Funds are awarded on the basis of financial need with the recipients being selected from those eligible students who apply for financial assistance to the Medical Student Aid Committee.

The W. Reece Berryhill Scholarship was established in 1964 by the University of North Carolina Medical Parents' Club to honor Dr. W. Reece Berryhill, Medical Class of 1925 and Dean of the School of Medicine 1941-1964. This scholarship is a merit award given to a rising senior student and based on excellence of academic performance since entering medical school.

The W. Reece Berryhill Mecklenberg Medical Scholarship was established in 1971 by the UNC Medical Alumni and Friends of Mecklenberg County to honor Dr. W. Reece Berryhill, Dean Emeritus of the School of Medicine and Sarah Graham Kenan Professor of Medicine. The scholarship will commemorate Dr. Berryhill's birthplace in Mecklenburg County and in selecting a recipient, first priority will go to Mecklenburg area residents.

The Board of Governors' Medical Scholarship was established in the spring of 1974 to provide increased medical education opportunities for financially disadvantaged students among minorities and others in the State. The program calls for the selection of 15 North Carolina residents to study at the Bowman Gray School of Medicine, Duke University School of Medicine, and the School of Medicine at The University of North Carolina, including the unit at East Carolina. Each scholarship recipient receives full tuition and required fees plus an annual stipend of $4,000. The Board of Governors' Scholarship Program was approved by the North Carolina General Assembly in 1974.

The Board of Governors' Scholarship selection committee bases its selection of recipients upon two major criteria: (a) relative financial need and (b) estimated potential for service to the people of North Carolina.

The Mark R. Braswell Medical Scholarships were established in 1966 in honor of Dr. Mark R. Braswell, Medical Class of 1884, of Rocky Mount, North Carolina. These scholarships are to be awarded annually to worthy medical students who have financial need.

The Charles H. Burnett Scholarship was established in 1967 by the University of North Carolina Medical Parents' Club to honor Dr. Charles H. Burnett, the first Chairman of the Department of Medicine in the four-year School and former Professor of Medicine. The scholarship is awarded annually to an entering medical student on the basis of merit and need.

Carolina Country Family Medicine Scholarship was established in July, 1975 by James A. Chaney, editor of the "Carolina Country Reader," in conjunction with the Moore Publishing Company of Durham, N.C. The purpose of this scholarship is to encourage medical students to become family doctors serving rural patients.

The Kenneth Raynold Edwards and Alfred Llewellyn Hobgood, Jr. Scholarship Fund was established in 1963 by Mr. Kenneth R. Edwards, before his death, a resident of Richmond, Virginia, and formerly of Henderson, North Carolina, to help worthy young men and women who would be unable to pursue a medical education at the University of North Carolina without financial assistance.

The Clyde Eubanks Scholarship Fund was established in 1966 through a bequest from Mr. Clyde Eubanks, a prominent Chapel Hill resident. The income from the fund is used for medical school scholarships.

The Dennis Luther Fox Memorial Scholarship was established in 1953 through a gift to the Medical Foundation of North Carolina, Inc., by Dr. Dennis Bryan Fox, Medical Class of 1935, of Elkin, North Carolina, in memory of his uncle, Dr. Dennis Luther Fox, who practiced medicine for over fifty years in Randolph County. According to the donor, "the recipient of the scholarship should be a resident of North Carolina, of good moral character and should have manifested satisfactory scholastic ability."

The Doctor William Hunt Hall Memorial Scholarship was created in 1959 by the will of the late W. Hunt Hall, Jr., of New York City, in memory of his father, Dr. William Hunt Hall, Medical Class of 1855, a Confederate veteran and a practicing physician of New York City. According to the provisions of the bequest contained in Mr. Hall's will, "the Trustees are directed to allocate the income from the principal to be used by the said Trustees of the University at Chapel Hill for the medical education of worthy students who, in their judgment, are in need of financial assistance."

Home Savings and Loan Association Scholarships were established in 1960 by the Home Savings and Loan Association of Durham and Chapel Hill, North Carolina, for worthy and needy students of medicine. These scholarships are renewable for the entire four years of medical study provided satisfactory academic achievement is maintained.

The Mrs. Augustus H. Jones Scholarship was created in 1930 by Mrs. James H. Parker, of New York City. The recipient of this scholarship is to be designated by Mrs. James H. Parker during her lifetime and thereafter upon the recommendation of the New York Chapter of the United Daughters of the Confederacy. Failing this recommendation from either source, appointment is to be made by the President of the University, preferences being given first to relatives of the late Dr. James H. Parker, of New York, and second to relations of the donor.

The James Craig Joyner Foundation Scholarship Fund was created in 1961 by a gift from the James Craig Joyner Foundation, of New York City, and in 1972 was significantly increased by a second gift from the

James Craig Joyner Foundation. Dr. James Craig Joyner enrolled in the University from Princeton, North Carolina, and entered the School of Medicine of the University in 1914.

The Kennedy Scholarship was established in 1960 with the help of Dr. Edward C. Curnen, Jr., former Professor of Pediatrics in the School of Medicine, from a bequest by the late Robert S. Kennedy, an old family friend of Dr. Curnen. The scholarship is awarded annually in memory of Mr. Kennedy's sister, Margaret Jane (Kennedy) Osborne; his brother, Maxwell Kennedy, and Robert S. Kennedy.

The Dr. W. Lunsford Long, Jr. Scholarship was established in 1963 through contributions from many of his friends, in memory of the late Dr. Long, Medical Class of 1942, a practicing physician in Raleigh, and member of the faculty of the University of North Carolina School of Medicine.

The Dr. John A. Lowder Memorial Scholarship was created in 1961 by Mr. and Mrs. S. Ray Lowder, of Lincolnton, North Carolina, in memory of their son, Dr. John A. Lowder, Medical Class of 1956. The income from the Memorial Fund established within the Medical Foundation of North Carolina, Inc., by Dr. Lowder's classmates, friends, and family is used for an annual scholarship to a deserving and needy student in the School of Medicine.

The L. P. McLendon Scholarship was established in 1968 through a bequest from Major L. P. McLendon, Law School Class of 1912, and gifts received by the Medical Foundation of North Carolina, Inc., in memory of Major McLendon. The income will be awarded yearly to a deserving medical student, preferably from the Counties of Durham, Guilford, Orange, or Anson.

The Isaac Hall Manning Scholarship Fund was established by John T. Manning, Dr. Isaac H. Manning, Jr., and Howard E. Manning, Alumni of the University of North Carolina, in memory of their father, Dr. Isaac Hall Manning, Medical Class of 1895 and Dean of the Medical School 1905-1933. The Fund was significantly increased in 1974 by a gift from the Sarah Graham Kenan Foundation. The income from the fund will be awarded annually to a student in the School of Medicine of the University of North Carolina on consideration of scholarship and need.

The C. Knox Massey Medical Scholarship was established in 1964 by Mr. C. Knox Massey, Undergraduate Class of 1925, in memory of Mr. Massey's father, C. W. Massey, Undergraduate Class of 1888, and Mr. C. T. Council, Pharmacy Class of 1907. The Scholarship is awarded to a worthy medical student, preferably from Durham County.

The Medical Student Wives Association Scholarship was awarded for the first time in 1964. It is the intent of the medical student wives to continue this annual gift from proceeds from their service projects.

The North Carolina National Bank Scholarships were created in 1960 through a gift to the Medical Foundation of North Carolina, Inc., by the Bank of Chapel Hill. These scholarships are awarded annually to worthy and dedicated students in the School of Medicine.

The John R. Paddison Student Aid Fund was established in 1967 by a bequest from Dr. John R. Paddison, Medical Class of 1900, as an expression of appreciation to the members of the Medical School faculty of the University of North Carolina and particularly as an expression of high regard for Dr. Richard Whitehead, Professor of Anatomy and Dean of the Medical School 1890-1905, and Dr. Charles S. Mangum, Professor of Anatomy and Dean of the Medical School 1933-1937. The income from the fund will be awarded yearly as a scholarship to a medical student who is in need of financial assistance and a resident of North Carolina.

The Parker Scholarship was established in 1930 by a gift of Mrs. James Henry Parker, through the James Henry Parker Chapter of the New York Division of the United Daughters of the Confederacy, in memory of her husband, the late Dr. James Henry Parker. The award is made annually upon recommendation of Mrs. Parker during her lifetime, and thereafter upon recommendation of the New York Chapter of the United Daughters of the Confederacy. In default of recommendation from either of these sources, the President of the University may designate the recipient.

The Riggins Scholarship was established through a gift to the Medical Foundation of North Carolina, Inc., by Dr. and Mrs. H. McLeod Riggins, of New York City, to honor Dr. Riggins' younger brother, the late Dr. John C. Riggins. Dr. H. McLeod Riggins was a member of the Class of 1922 of the Medical School of the University of North Carolina. This scholarship is a merit award given to a rising junior student and based on excellence of academic performance since entering medical school.

The Dr. Eli R. Saleeby Fund was established in 1966 by Dr. Saleeby, Medical Class of 1920. The income from the fund may be used at the discretion of the Dean for student aid.

The Sigmund Sternberger Scholarships were established in the School of Medicine of the University of North Carolina in 1970 in the form of an annual gift from the Sigmund Sternberger Foundation, Inc., of Greensboro, North Carolina. The late Sigmund Sternberger was a prominent industrialist associated with Cone Mills Corporation engaged in textile manufacturing in Greensboro. He was one of the leaders in the civic, religious, and cultural activities of Guilford County and was deeply devoted to assisting persons in the community who but for his help would not have otherwise been able to realize their full potential. The scholarships are awarded to deserving students who are residents of North Carolina and who are genuinely interested in practicing medicine in the State.

The Dr. Thomas Woodfin Sumner Memorial Scholarship Fund was established through a bequest by Mrs. Grace A. Sumner, who died August 19, 1973, in memory of her husband, Dr. Thomas Woodfin Sumner, of Hendersonville, North Carolina. He attended the School of Medicine in 1906-1908 and dedicated 50 years of his life to the practice of medicine.

The Nat Henderson Swann, Sr. Scholarship was established in 1968 by Dr. Nat Henderson Swann, Jr., Medical Class of 1954, in memory of his father. The scholarship is awarded annually to a promising medical student

with financial need from any one of the four classes of the School of Medicine.

The Dr. John Cotten Tayloe Scholarship. Bearing the name of a loyal alumnus, Medical Class of 1920, active Trustee and long-time friend of the University of North Carolina, this scholarship was made possible by a bequest to the Medical Foundation by Dr. Tayloe and was awarded for the first time in 1964.

The Isaac M. Taylor Scholarship was established in 1971 by the University of North Carolina Medical Parents' Club to honor Dr. Isaac Montrose Taylor, Dean of the School of Medicine from 1964 to 1971. The scholarship will be awarded annually to a medical student on the basis of merit and need.

The Adam Thorp Memorial Scholarship was established in 1960 in memory of Dr. Adam Thorp, Medical Class of 1919, of Rocky Mount, North Carolina, by a group of his friends in eastern North Carolina through contributions to the Adam Thorp Memorial Fund of the Medical Foundation of North Carolina, Inc. Dr. Thorp was president of the Alumni Association during the period 1956-57. The scholarship is awarded to worthy students of medicine in financial need.

The Dr. Hillory M. Wilder Scholarship Fund was established under the will of Mrs. Celeste W. Blake in memory of her father, Dr. Hillory M. Wilder of Charlotte, North Carolina, Undergraduate Class of 1846. Beginning in 1963, the income from this endowment is used for scholarships to aid students in need of financial assistance in the pursuit of study for the medical profession. The dominant purpose in awarding these grants is to "produce the greatest benefit in the advancement of the science of medicine among residents of North Carolina and the alleviation of human suffering in North Carolina."

The Marie and John Zimmerman Foundation in 1973 contributed funds for loans and grants for women medical students. The recipients will be known as the Marie and John Zimmerman Scholars.

The University of North Carolina Medical Alumni Loyalty Fund Scholarships. A limited number of these scholarships has been made possible through gifts from alumni and friends of the School of Medicine.

The John Motley Morehead Fellowships in Medicine were established in 1965. Mr. Morehead was a graduate of the University of North Carolina, class of 1891. Nominees for the Fellowships are selected by the Admissions Committee of the School of Medicine from its applicants for each entering class. From the nominees three Fellows are selected by a special committee employing the criteria of scholastic ability and attainment, motivation toward the field of medicine and promise of distinction in that field, and personal qualifications. Financial need is not considered. The Fellowships provide tuition, fees, and $2,500 per year for four years. (For the current Morehead Fellowship recipients, see Awards, page 121.)

LOANS

Loan funds are available from the following sources:

The University Student Aid Office. To students who can qualify on the basis of need, the University offers extended loans under very favorable terms. Under the provisions of the Health Professions Assistance Act, when need can be shown, students may borrow up to $3,500 per year.

In addition to funds made available by Federal appropriations, the following loan funds are under the supervision of the University Student Aid Office and are available to medical students:

The Kellogg Loan Fund. Through the generosity of the W. K. Kellogg Foundation, a sum was granted the School in 1942 to be used for scholarships and loans to needy medical students; the scholarship fund has been exhausted. The loans from this fund are made on the basis of need, character, and scholastic attainment.

The Lynn McIver Medical Students Fund. (Established in 1959). The will of Elva Bryan McIver provided for the sale of a farm in Lee County to establish a loan fund in memory of her late husband, Dr. Lynn McIver, Medical Class of 1899, to be used by worthy, deserving students of good character in the School of Medicine.

The Dr. and Mrs. Edgar B. Jenkins Student Loan Fund. This loan fund for medical students was established in 1965 by a gift from Dr. and Mrs. Jenkins, Alumni of the University of North Carolina, and will be used to assist worthy students in financing their education.

The College Foundation, Inc.–Federally Insured Loan. The College Foundation, Inc. in Raleigh, North Carolina processes this Federally insured guaranteed loan, generally for in-state students. A student may borrow $2,500 per year at 7% interest if eligible. However, if the adjusted family income of that student is less than $15,000 a year, the interest is paid by the Federal government while the student is enrolled in Medical School. Additional information about this program is available through the Dean's office of the Medical School.

The North Carolina Educational Loan Program. Loans are available to students in specific studies in the medical and other health related professions who agree to practice their specialities in communities of limited population or in specified health programs in North Carolina in which there is an urgent need, or by teaching in an accredited program within the discipline for which financial assistance for training was granted by the Department of Human Resources. Assistance is restricted to selected North Carolina residents who show appropriate interest and motivation and who have scholastic potentialities for completing their courses of study. All loans are cancelled on the basis of professional practice in accordance with the loan agreement, one calendar year for each academic year or fraction thereof for which a loan is received. If the recipient is unable to practice as specified upon completion of professional training, or if the Department of Human Resources determines there is justification for cancelling the loan agreement, the recipient agrees to

repay the loan on demand at a rate of interest established by the Department of Human Resources at the time the loan is accepted. The maximum amount of the Department of Human Resources loan for medical students is $4,000 per year for the four years of medical school. The application and supporting information must be received by the Department of Human Resources not later than June 1, if the regular academic year begins in September. Their address is: Division of Facility Services, Educational Loan Program, P.O. Box 12200, Raleigh, North Carolina 27605.

The American Medical Association–Education and Research Foundation Medical Education Loan Program. Students who have completed a semester of medical studies are eligible for consideration for interest-bearing, long-term loans up to $1,500.00 per year at 8.75% interest.

The Medical Parents' Emergency Loan Fund. The Medical Parents' Club of the University of North Carolina at Chapel Hill has established a fund to be used as an emergency loan fund for students of medicine. The loans are short-term and the maximum loan a student may carry at any one time is $300.

The Jim Baker Loan Fund. This student loan fund was established in July 1955 in appreciation of Dr. Charles B. Mangum and Dr. William deB. MacNider and in honor of James Daniel Baker, the father of Dr. Lenox D. Baker. Dr. Baker was a student at the Medical School of the University of North Carolina in 1930-31.

The Sama Lea Mendota-Russell F. Staudacher Revolving Loan Fund. This fund offers students the opportunity to borrow money in amounts up to $100.00, with interest for a period of three months.

The Director of Student Aid also advises students on other sources of financial aid that are available, including private agencies.

EMPLOYMENT

Part-time work by medical students during the school year, except on a very limited scale, is generally discouraged. There are numerous opportunities, however, for summer jobs and research. Information about summer jobs at other locations is available upon inquiry at the Student Aid Office in the School of Medicine.

EVALUATION OF STUDENT PERFORMANCE

The students in the School of Medicine are highly selected at the time of their arrival here, and the expectation of the faculty is that all students who enter should be able to complete successfully the requirements for the degree of Doctor of Medicine. Certain certifying standards must be met and the evaluation system outlined is intended to accomplish this end.

Acceptance of the regulations and policies described is assumed with registration.

THE EXAMINATION SYSTEM

The aims of the faculty in establishing the examination system described below are to enhance the scholarly atmosphere of the School by encouraging the student to take much of the responsibility for his own continuing study and to eliminate examinations as a basis for motivating study.

In-Course Evaluations

Each course director is expected to transmit clearly to the student at the beginning of the course the general objectives of the course, the teaching methods to be used, and the evaluation procedures which will be utilized.

Each course director is asked to submit qualitative reports on individual student performance to the Student Promotions Committee. As a basis for this qualitative evaluation, instructors may use information derived from small group discussions, and personal interaction with students.

Directors and faculty of courses in the first and second years of the curriculum have the option to give in-course examinations for the purposes of evaluation of student performance in the course, and evaluation of the effectiveness of faculty instructional presentations. The maximum examination time permitted for each course will be 1.5 hours of examination for each 45 contact hours of instruction. Those courses that have less than 45 contact hours of instruction in the curriculum shall have a maximum of 1 hour for examination. The Associate Dean for Basic Sciences shall monitor (a) the number of in-course examinations and the total time devoted to in-course examinations for each course, and (b) the scheduling of examinations so that an appropriate interval is maintained between examinations in the various courses.

At the beginning of each academic year, students in the first and second years of the curriculum will be randomly assigned a code number by the Dean's Office with the list of code number assignments being confidentially maintained in that office. The student will place the code number assigned to him/her on all in-course examinations. After each examination, the director of the course may request the name of each student who did not achieve a passing score for the examination as determined by the faculty of the course. The names of these students are

given to the course director and the class advisor for purposes of counseling and aiding the students.

The Promotions Committee will have access to data from in-course examinations for their deliberations concerning students (a) who are being considered for honors for the year and (b) whose overall yearly performance (based on comprehensive examinations and subjective comments) is in question.

Students will also be given the opportunity for self-evaluation of performance during the year by optional quizzes in which they are not identified by name. These quizzes are in addition to the in-course examinations given to all students.

Final Examinations

Faculty examinations committees are responsible for the development, administration, grading and analysis of the year-end examination(s). A single examination covering the subjects taught in each year may be given or a group of examinations, each representing one or more of the subjects taught, may be utilized. The Committee also may elect not to administer an examination in a particular subject. A total score for the entire examination(s) for each student is reported to the Student Promotions Committee.

GRADING SYSTEM

The Student Promotions Committee acting for the faculty has the responsibility for assigning an overall grade for the entire year's work to each student. This grade is determined by a review of the student's total performance for the year, including faculty evaluations of in-course performance, final examination scores and their analysis by the Examinations Committee, and any additional relevant material. The final examination scores will serve as only one criterion for the grade and may be overriden in either direction by other available information.

The grade awarded to the student for his year's work is a single notation of Honors (H), Pass (P), or Fail (F), and is the only grade recorded on the Medical School transcript for future certification needs. This grade is made known to the student and the final examination numerical score is also available to him upon request. Students are not ranked academically.

The grade of Honors (H) is given when, in the opinion of the Promotions Committee, the student's overall performance for the year merits special commendation.

The grade of Pass (P) is given when, in the opinion of the Promotions Committee, the student's overall performance for the year is acceptable and satisfactory. Remedial action may be required in a specific area(s) if educational weaknesses are revealed during the Promotions Committee's evaluation of a student.

The grade of Fail (F) is given when, in the opinion of the Promotions Committee, the student's overall performance is unsatisfactory and unacceptable.

A temporary grade of Condition (CO) for students not clearly passing or failing or a temporary grade of Incomplete (I) for students who have not completed prescribed work may be reported pending removal of these deficiencies.

PROMOTION

The Student Promotions Committee acting for the faculty recommends to the Dean promotion, graduation, dismissal, or any variation therefrom that, in the opinion of the Committee, is appropriate.

If the student's overall performance for the year is considered unsatisfactory, the Promotions Committee will make what it considers appropriate recommendations and will counsel with the student about his difficulties. He may be required to perform specific remedial work in a manner satisfactory to the Promotions Committee; he may be required to repeat the year in a manner satisfactory to the Promotions Committee; or he may be dismissed if, in the judgment of the Promotions Committee, he does not show sufficient promise to continue in Medical School.

A student may initiate an appeal to the Promotions Committee to reconsider its decision and this appeal may be made by personal appearance before the Committee or in writing to the Committee. If the Committee reaffirms its original decision, this decision can then be appealed by the student to the Advisory Committee of the Medical Faculty. A student dismissed can be readmitted by a majority affirmative vote of the Advisory Committee of the Medical Faculty.

In view of its responsibility to the public, the medical faculty will exercise its obligation to dismiss any student from the Medical School if the student does not in the judgment of the faculty show sufficient promise or the proper moral character to justify his continuing in the study of Medicine regardless of his academic performance.

REQUIREMENTS FOR DEGREES IN MEDICINE

The Doctor of Medicine

Graduation from the School of Medicine with the degree of Doctor of Medicine is dependent upon the completion of the prescribed required and elective curriculum in a manner satisfactory to the Student Promotions Committee, acting for the faculty.

Doctor of Medicine with Honors

The degree of Doctor of Medicine with Honors has been established and approved by the Faculty of the School of Medicine. To be eligible for an M.D. degree with Honors a student must meet two criteria: (1) an outstanding academic record; and (2) submission to the appropriate

faculty committee a scholarly paper of superior quality related to some aspect of medicine. The student must be the sole author of this paper. Papers may be submitted to the Committee at any time, but not later than March 1 for May graduation, August 1 for August graduation, and December 1 for December graduation.

Bachelor of Science in Medicine

The Promotions Committee will consider for recommendation to the College of Arts and Sciences those candidates for the Bachelor of Science degree in Medicine who satisfactorily complete the prescribed curriculum of the first year of Medical School.

ACADEMIC RECORD

A complete academic record is maintained by the Office of the Dean on each student registering in the School of Medicine. Reports of performance, certifications of enrollment, and letters of recommendation are supplied upon request of the student without charge for applications for training, licensure, etc.

A student will have appropriate access to his/her record upon request with the right to challenge the accuracy of the information contained therein.

AWARDS

Students and faculty are recognized annually by selection for awards. Descriptions of the merit scholarships listed below are shown under the Scholarship section of this publication. Other award descriptions follow the listing for 1974-1975.

HONORS AND AWARDS FOR THE YEAR 1974-1975

The Professor Award . . . . . George M. Himadi, M.D.
Associate Professor of Radiology

The Medical Basic Science Teaching Award . . Lloyd Robert Yonce, Ph.D.
Associate Professor of Physiology

The CCB Excellence in Teaching Award . . William Paul Biggers, M.D. '63
Associate Professor of Surgery

The Henry C. Fordham Award . . . . . Richard Walsh, M.D.
Resident in Medicine

The Outstanding Intern Award . . . Harold Calloway Pollard III, M.D. '74
1st Year Resident in Obstetrics and Gynecology

The William deB. MacNider Award . . . . . Francis Sellers Collins '77

The Isaac Hall Manning Award . . . . . David Charles Lanier '75

The James Bell Bullitt Award . . . . . Cyril Anthony Allen '75

The Medical Faculty Award . . . . . Hoke Dickinson Pollock '75

The Roche Award . . . . . Kenneth Howe Winter '75

Sandoz Award . . . . . Donald Carl Fidler '75

The George C. Thrasher, Jr. Award . . . . . Eugene Drew Bridges '75

The Upjohn Award . . . . . Cyril Shelden Dodge '75

The Heusner Pupil Award . . . . . Richard Nixon Duffy III '76

The Mosby Book Awards . . . . . Pamela Stewart Rand '75
James Stephenson Wilson, Jr. '75
Edward Christian Cameron '76
Meyer Edwin Dworsky '77
John D. Davis, Jr. '78

The Lange Awards . . . . . Henry Worth Parker '75
Charles Pitman Langley III '75
Carol Elizabeth Wratten '76
Mary Louise Osborne '76
Cecil Vanmeter Crabb III '77
Randy Sue Ellis '77
Jean Marie Whitmore '78
Jeremy Alan McCreary '78

The Merck Awards . . . . . John Harvey McMurray '76
Judith Mae Kramer '77
Peter Alan Schlesinger '78

Alpha Omega Alpha Honor Medical Society

Class of 1975

James Franklin Black
Cyril Shelden Dodge
*Maynard Darvy Fuller, Jr.
*Thomas Higgins
Ernest J. F. Krug III
David Charles Lanier
Gary M. A. McClain
Danny Allen Myers
William Ronald Neal
Henry Niles Nelson III
*James Edward Peacock, Jr.
*Hoke Dickinson Pollock
Charles William Ralston III
Pamela Stewart Rand
*David Marshall Reid
Kenneth Keller Steinweg
*James Stephenson Wilson, Jr.
*Kenneth Howe Winter

*Elected Junior Year.

Class of 1976

Robert Gary Berger
Jack Pool Byrd
Richard Nixon Duffy III
Catherine Joyce Everett
Kathleen Ann Gallagher
Charles Henry Hicks
John Harvey McMurray
William Douglas Routh
Grady Mitchell Stone
Carol Elizabeth Wratten

The Student Research Paper Awards

The Deborah C. Leary Memorial Award . . . . . Francis Sellers Collins '77
"A general method for detection of aminoaciduria"

Second Award . . . . . Duncan Sybren Postma '77
John Bartholomew Pecorak '78
"Outer hair cell loss and alterations in outer hair cell glycogen following treatment with tobramycin sulfate"

The Third Award . . . . . Deborah Daetwyler Boyd '77
"Effect of gastrointestinal hormones on electrolyte transport by rabbit esophagus"

The Student Research Day Awards

The Michiko Kuno Research Award . . . . . Francis Sellers Collins '77
"Detection of aminoacidurias"

Student Research Day Second Award . . Cornelius Fitzharold Cathcart '76
"High correlation of cell mediated immunity (CMI) specifically directed against brochogenic carcinoma cells found in heavy smokers"

Student Research Day Third Award . . . . . Duncan Sybren Postma '77
"Outer hair cell loss and alterations in outer hair cell glycogen"

Student Research Day Fourth Award . . . . . George Allen Stoudemire '77
"Syergism between prolactin and ovarian hormones on DNA synthesis in rat mammary gland: Possible relationship to tumorogensis"

Foreign Fellowship Awards . . . . . George William Henry '77
Marianna Matthews Henry '77
Gary Robert Krieger '77
Melinda Coover Paul '77
Richard Harry Weisler '77
John Jacob Brantley II '76
James Wesley Cockerill '76
Charles Henry Hicks '76
David Hershey Hopper '76
Vincent Edgar Paul '76

King Edward VII Hospital Fund-
Duke Endowment Foreign Fellowships . . . . . .Warwick Aiken III '76
Jane Cary Burns '78
Robert Lee Hines '78
Peter Joseph Morris '78
Thomas Lee Pope, Jr. '78

Warwick Fellowships . . . . . .Larry Duane Eggert '77
Leighton Alvin Raynor '77

The W. R. Berryhill Merit Scholarship . James Stephenson Wilson, Jr. '75

The Riggins Merit Scholarship . . . . . .Richard Nixon Duffy III '76

Alumni Merit Scholarships . . . . . .Hoke Dickinson Pollock '75
Thomas Higgins '75
John Harvey McMurray '76
Katheen Ann Gallagher '76
Francis Sellers Collins '77
Michael Stevens Wheeler '77

Marie and John Zimmerman Scholars . . . . . .Patricia Anne Aronin '76
Sabra Alderman Bray '76
Karen Sharrock McCoy '76
Susanne Tropez White '76
Frances Russell Thomas '79

The Morehead Fellows, Class of 1978 . . . . . .John D. Davis, Jr.
Mark Donald Monson
Peter Alan Schlesinger

ALPHA OMEGA ALPHA

Gamma Chapter of North Carolina of Alpha Omega Alpha, national medical honor society, was installed at The University of North Carolina School of Medicine in June, 1954. A small number of students in the junior and senior classes are eligible for election to membership. Selection is based upon high academic standing, moral character, and promise of future contribution to the field of medicine.

THE WILLIAM deB. MacNIDER AWARD

The William deB. MacNider Award was established by the second-year class of 1950 and consists of public commendation of a sophomore

medical student who is elected by his classmates because he possesses various intangible traits of good character which were typified by Dr. "Billy" MacNider during his fifty-one years as teacher and physician at The University of North Carolina at Chapel Hill. A plaque hangs in the MacNider Hall and is inscribed each year with the name of the recipient.

THE ISAAC HALL MANNING AWARD

The Isaac Hall Manning Trust Fund was established in 1954, by an anonymous donor, to honor Dr. Isaac Hall Manning, formerly Professor of Physiology and for many years Dean of the School; his service in the School was continuous from 1905 to 1936.

The fund will provide an annual award to the member of the graduating class whom the dean and the Medical Faculty may deem especially worthy of honor.

THE C. V. MOSBY COMPANY BOOK AWARDS

The C. V. Mosby Company Book Awards are presented annually by the Mosby Publishing Company. These awards consist of the presentation of a current medical book to five outstanding students in the School of Medicine: two members of the senior class and one member each of the freshman, sophomore, and junior classes.

THE ROCHE AWARD

The Roche Award is presented annually by The Roche Laboratories, Division of Hoffman-LaRoche, Inc., to the senior student judged by a faculty committee to be an "outstanding student" with the "qualities most desirable in a physician." The award consists of a scroll and a gold wrist watch engraved with the name of the award and the recipient.

THE DEBORAH CUSHING LEARY AWARD

The Deborah Cushing Leary Award was established in 1958 in honor of the late Dr. Deborah Cushing Leary, Associate Professor of Obstetrics and Gynecology at The University of North Carolina School of Medicine for the period 1952-1957. This award is given to the student whose paper is judged by a faculty committee to be the best paper submitted for consideration in the Medical School Student Research Paper Program.

THE PROFESSOR AWARD

"The Professor" Award was established by the Senior Class of 1956. It consists of a permanent bronze plaque, placed in the Library, to which is added annually the name of the recipient; in addition, each recipient receives an individual, engraved plaque, which is presented during the graduation exercises. The inscription of the plaque reads: "This award is presented annually by the graduating class of The University of North Carolina School of Medicine to that faculty member who by his

willingness, understanding, and ability has contributed most to our medical education."

THE HENRY C. FORDHAM AWARD

This award was established by the Senior Class of 1958 in honor of the late Dr. Henry C. Fordham, Resident in Medicine at the North Carolina Memorial Hospital, 1957-1958. The seniors award this annually to a member of the house staff "in recognition of his qualities of patience, humility, and devotion to medicine as were possessed by Dr. Fordham." The name of the recipient is engraved on a plaque which hangs in the Library.

THE INTERN AWARD

In 1963, the junior class selected the intern who has been most helpful to their class and presented him with a book in his specialty. Subsequent classes have continued this practice.

THE JAMES BELL BULLITT AWARD

The James Bell Bullitt Award, given for the first time in 1962, honors Dr. Bullitt, formerly Professor of Pathology, who was a member of the faculty of the School of Medicine from 1913 to 1947.

Consistent with the *varied* contributions of Dr. Bullitt to this School, the award bearing his name is flexible in purpose and provides an opportunity for recognizing unusual achievements or contributions by a member of the senior class.

THE HEUSNER PUPIL AWARD

This award was established in 1964 by friends of the late Dr. A. Price Heusner, who was Professor of Surgery from 1952-1956 and then Professor of Anatomy until his death in 1963. A special faculty committee selects the recipient: "a member of the rising fourth-year class who shall show a great capacity to grasp the principles of science, to heal the sick, to comfort the troubled, to be humble before his God."

THE BASIC SCIENCE TEACHING AWARD

The Basic Science Teaching Award was established in 1965 by the second-year class to honor a faculty member from the medical basic sciences who has contributed in a particularly effective and devoted manner to their education. The award reads: "In recognition of his reflection of the joy of learning and his ability to stimulate the critical inquiry and perseverance that are requisite to learning."

THE MERCK AWARDS

The Merck Awards are presented annually by Merck and Company to two students judged by a faculty committee to be deserving of

recognition. The awards consists of manuals engraved with the names of the recipients.

THE LANGE AWARDS

The Lange Awards for academic excellence are presented by Lange Medical Publications to honor two outstanding members of each class as selected by a faculty committee. The awards consist of gift certificates for four publications for each graduating senior and for two publications for each underclassman.

THE GEORGE C. THRASHER, JR., AWARD

The George C. Thrasher, Jr., Award was established in 1965 by the Department of Psychiatry to be "given annually to that member of the graduating class who, during his medical school experience, shows most outstanding performance and ability in Psychiatry." A special committee in the Department of Psychiatry will select a student for recommendation to the faculty committee on awards.

THE NATIONAL FOUNDATION MERIT AWARD

An award of $250 will be given by the National Foundation to the University of North Carolina School of Medicine student who is judged to submit the best thesis, or equivalent on any subject relating to "Birth Defects."

THE UPJOHN AWARD

In 1969, The Upjohn Company established an award to permit recognition of a graduating senior. The award consists of a check and an engraved plaque. The recipient is selected for distinguished service in student affairs.

THE MEDICAL FACULTY AWARD

The Medical Faculty Award, established in 1971, is given to the graduating senior who has, in the opinion of the medical faculty, contributed in an outstanding way as a student, scholar, and member of this medical community. Nominations are made and funds contributed by the faculty. Contributions in excess of the $100 award are given to the Student Aid Fund in the Dean's Office.

THE CIBA AWARD

The CIBA Award, established in 1973, consists of a complete set of the Netter CIBA Medical Illustrations in seven volumes and is given to the sophomore medical student who, in the opinion of the Awards Committee, has contributed most in the area of community service.

THE CENTRAL CAROLINA BANK EXCELLENCE IN TEACHING AWARD

An award for $1,000 for excellence in teaching, established by Central Carolina Bank in 1973, is given to a member of the medical school faculty selected by a vote of the entire medical school student body. The award alternates each year between basic sciences faculty and clinical faculty, and all members of the medical school faculty are eligible.

THE MICHIKO KUNO RESEARCH AWARD

The Michiko Kuno Research Award was established in 1975 in honor of the late Mrs. Michiko Kuno, wife of Dr. Motoy Kuno, Professor of Physiology. The cash award is given to the student whose research paper and presentation at the annual Student Research Day is judged best by a student and faculty committee.

THE SANDOZ AWARD

The Sandoz Award, established by Sandoz, Inc. in 1975, is given to a fourth year medical student in recognition of superior academic achievement and contribution to health care. The award consists of a check and an engraved plaque.

THE FRANK LEE DAMERON AWARD

The Frank Lee Dameron Award was established by the Class of 1975 in memory of their classmate and in recognition both of his achievements as a medical student and of his commitment to return to his hometown in a medically deprived area of the state to practice medicine. The award is given to a member of the third year class who is a student in good standing, committed to practicing primary care medicine at the end of his training program in a rural or medically deprived area of the state. Selection by class ballot is directed by the Vice-President of the senior class with the assistance of a designated faculty member and the President of the Whitehead Society. Announcements of the recipient and presentation of the check is made by the Vice-President of the senior class at Student-Faculty Day.

RESEARCH GRANTS AND FELLOWSHIPS

A number of opportunities are available to students, during their free periods, to work in research and service areas. Financial support is in the form of direct grants to students from various sources. These positions offer the student a chance to learn basic research techniques and, by becoming involved in a research project with a faculty member, to appreciate the process of acquiring new knowledge. These grants are awarded by a Committee on Grants or directly by an individual faculty member.

Valuable training opportunities are available to selected students each year in Post-Sophomore Research Fellowships and allow a student to drop

out of school for one year, usually between the sophomore and junior years, to devote his entire time to research activity under the direction of a faculty member.

The School of Medicine has a small number of $500 fellowships available to pay for travel expenses and furnish partial support for medical students who wish to have an elective clinical or research experience in another country or another part of the United States. One of the fellowships is reserved each year for two students selected for a clinical experience at Warwick Hospital in England. Students who wish to compete for one of the fellowships should submit a proposal to the Student Awards Committee, Office of the Dean, stating the type of experience desired, the foreign sponsor, dates, and objectives in terms of overall as well as specific goals. A deadline for receiving proposals will be announced.

The Division of Education and Research in Community Medical Care administers fellowships for participation in a five-week summer program based in London, England. The program is oriented toward community medicine with an opportunity also provided to get an overview of the whole field of British medicine. This is a residential course centered in the College of the King's Fund in London where there is an opportunity to meet students and physicians from England and the developing countries overseas who are also in residence there. Visits to medical schools, hospitals, and group practices are planned as well as to places of cultural and historical interest.

PROGRAM OF STUDY FOR MEDICAL STUDENTS

CURRICULUM

A flexible new curriculum was implemented with the first year class in the fall of 1970, making possible individual study programs which take into account the varying abilities, backgrounds and career goals of medical students as well as their concern for human welfare and their interest in the biomedical sciences.

The Educational Policy Committee composed of faculty members from the Basic Science and Clinical departments coordinates the curriculum of the medical school. The courses are clinically oriented, and throughout his studies and experiences in medical school, the student deals with the application of basic science data to the solution of medical problems. Course directors, each assisted by a committee composed of both basic and clinical scientists, are responsible for the courses in the first two years. Full-time clinical clerkships, also under the direction of course directors, make up the third year. An academic year of elective courses is required of each student. This may be intercalated with the first three years of the curriculum to permit graduation in three calendar years.

The Medical School has established teaching programs at a number of community hospitals and practice sites in North Carolina (Area Health Education Centers). Assignments in these facilities account for between 15-33% of each student's clinical training. This well supervised experience serves both to develop clinical skills and to enhance primary career choices while exposing students to the opportunities and challenges of community based medical practice.

The student's full-time assignment to Physical Diagnosis of ten or more days at the end of the second year may be at a facility out of town; all students spend one-third of their Medicine clerkship and may spend all or part of the Obstetrics-Gynecology clerkship and the Pediatrics clerkship at an affiliated hospital; assignment to the Psychiatry clerkship may be at a mental health clinic or out-of-town hospital; assignment to the Family Medicine preceptorship and to the other required patient responsibility elective may also be at affiliated hospitals. Living accommodations and/or commuting arrangements are provided as appropriate according to a published schedule.

Students' schedules while on clinical clerkships, family medicine preceptorships, and clinical electives include weekend and night work which varies in amount in each department. Detailed information may be obtained from the coordinator of each program.

The curriculum is based on the assumption that the body of scientific knowledge and clinical skills are so diverse and extensive that it is impossible to include all that a student will need to know and be able to do when he completes the requirements for his medical degree. The educational experience is regarded as the first phase in his professional development which will be followed by specialized post-doctoral education and a lifetime of continued professional study. Material included in

the curriculum is selected to aid the student in developing his abilities to solve medical problems, to evaluate data and assess its significance and reliability, and to understand basic concepts of science and medical practice.

During the first year, students may design individualized laboratory "projects" under the direction of a faculty member which could extend throughout his curriculum. Such projects are carried out in the research laboratories of the hospital.

A student may also undertake a combined M.D.-Ph.D. or M.D.-M.S. Program in one of the basic medical sciences or in Public Health or may also be considered for the M.D. with Honors degree.

Courses for medical students, as described by the course directors, follow on subsequent pages.

COURSE DESCRIPTIONS

Cell Biology

A course designed to provide entering students with the major chemical and biochemical concepts of the morphology, composition and functions that are common to mammalian and bacterial cells. Includes a detailed consideration of such topics as structure, energy production, and utilization, biosynthesis, genetics and regulation. Toward the end of the course differences between mammalian and bacterial cells and certain specialized topics such as collagen, acid-base relationships, etc. which lie outside this format, are presented. Laboratory exercises, small group discussions and demonstrations are used to exemplify the lecture material. *Dr. Harry Gooder*

General Pathology

Prerequisites, gross anatomy and histology. The course runs three mornings a week during the spring semester consecutively with microbiology, immunology and neurobiology. The material presented is basic mechanisms of human disease including genetics, inflammation, necrosis, infarction, degenerative diseases and neoplasia. There are two lecture hours and a laboratory each morning. The laboratories consist of histologic and gross study of diseased human tissues and include periodic presentation of clinical material. Required course for first year medical students, other graduate students by permission only. *Dr. Frederic Dalldorf*

Gross Anatomy

Dissection of the body, supplemented by lectures, demonstrations of several kinds, and conferences. One lecture and six laboratory hours a week, fall; two lecture and six laboratory hours, eight weeks of spring semester. *Dr. Charles Hooker*

Histology

The course of Histology consists of 2 lectures and 3 hour laboratory per week for the first semester. The lectures are concerned primarily with concepts of morphology of cells, tissues and organs as related to function. These concepts are based on studies by light and electron microscopy, x-ray diffraction, cell fractionation, autoradiography and other tools of analysis. The laboratories provide the student with an opportunity to become familiar with structural characteristics and interrelationships of normal cells, tissues and organs as studied with the light microscope. Small group review and discussion sessions are also available to the students. *Dr. Edith K. MacRae*

Immunology

Immunoglobulin classes and subclasses, lymphocytes and phagocytes in the immune response. Immunological phenomena, regulation and genetic control. The course covers basic principles of the immune response, its molecular and cellular basis, outogeny, regulation and genetic control. Infection, inflammation, transplantation and tumoric genesis are the focal points of lectures and group discussions. *Dr. John K. Spitznagel*

Introduction to Medicine

This three hour course uses patient interviews, case presentations, and small group discussions to explore the relationship of the basic sciences and the behavioral sciences to clinical medicine. The biological, psychological, and sociological correlations of individual patient problems to their health care needs are explored in the context of the doctor-patient relationship.

The spring semester is devoted to an intensive course in medical interviewing with the student assigned to a small group precepted by a clinical faculty member who reviews with the other members of the small group several video-taped interviews conducted by the student. Participating faculty members represent all the clinical departments of the medical school. *Dr. James A. Bryan II*

Microbiology-Virology

This course is scheduled for three mornings per week during the spring semester and is closely coordinated with general pathology. Lectures, group and individual discussions and laboratory exercises are used to introduce students to the study of infections caused by bacteria, viruses, fungi and large parasites. Stress is placed on the structural, chemical and biological nature of infectious agents, host-parasite interactions and the nature of resistance to infection, especially as these relate to prevention, diagnosis and treatment of infectious diseases. *Dr. G. P. Manire*

Neurobiology

Prerequisites, anatomy, histology, cell biology. Required of first-year medical students.

The course is a multidisciplinary approach to the nervous system in health and disease. The structural and functional organization of the nervous system is analyzed at the level of the cell membrane, the neuron and integrated neuronal systems. Emphasis is also placed upon common pathological disturbances. Clinical cases are presented to illustrate anatomical, physiological and pathological points.

One hundred hours, including lectures, demonstrations, discussion groups and laboratory exercises. The Departments of Anatomy, Neurology, Pathology, Physiology and Radiology. Spring Semester. *Dr. Edward Perl*

Biochemical Topics in Clinical Medicine

This course consists of lectures, self-instructional units, and discussion sessions on topics such as: disorders of porphyrin metabolism; disorders of metabolism of carbohydrates and lipids; genetic disorders of metabolism; biochemistry of liver diseases, etc., 25 clock hours. Spring. Staff of Biochemistry and Clinical Chemistry Departments. *Dr. J. Logan Irvin*

Cardiovascular-Respiratory Systems

This is a systematic study of the cardiovascular-respiratory systems with stress on the functional mechanisms which are especially relevant to the practice of medicine. Emphasis is placed on physiology, pathology and clinical correlations. *Dr. Lloyd Yonce*

Endocrine System

The objectives of the course will be to learn about the physiology, biochemistry, anatomy, pathology and pharmacology of the major endocrine glands in man. Emphasis will be placed on these areas of basic endocrinology which are most essential in the practice of medicine. Selected endocrine diseases will be considered as examples of endocrine pathophysiology. *Dr. David Ontjes*

Gastrointestinal System

Gastroenterology. Disorders of the digestive system, including the hepatobiliary tract and pancreas, are presented by correlative approach. The Departments of Physiology, Pathology, Pharmacology, Biochemistry, Medicine, Surgery, and Radiology collaborate in presenting basic science aspects of digestive diseases using illustrative clinical materials where appropriate. *Dr. Don W. Powell*

Hematology

This course is designed to give the student an overview of the broad field of Clinical Hematology. It includes both lecture and laboratory periods. An important aspect of the course is to permit sophomore medical students to learn peripheral blood and bone marrow morphology. The ability to interpret peripheral blood smears is essential for any physician and is one of the most important simple laboratory tests. A laboratory booklet and handouts are available. *Dr. H. R. Roberts*

Introduction to Psychiatry

Introduction to Psychiatry is a basic clinical course aimed at providing the knowledge base of human behavior and clinical psychiatry essential to every physician. The class meets two hours per week throughout the second year. A lecture-demonstration format is used to present concepts in basic behavioral science, descriptive psychopathology, psychiatric etiology, psychiatric treatment modalities, human sexual behavior, psychosomatics and forensic psychiatry. Where possible the topics presented are co-ordinated with the other courses and "organ system" under consideration at that time. *Dr. William Bakewell*

Medicine and Society

This course has two basic components. The first relates to the issues of organization, financing, and quality assessment of health care services as these issues exist within a professional *and* political arena. Faculty are drawn from a variety of disciplines and professional settings. A consideration is also given to the legal aspects of medicine. The second component relates to the tools used by health professionals in measuring both the status of health and illness in a community and the impact of health services upon the community. Faculty are drawn primarily from the departments of biostatistics and epidemiology in the School of Public Health. *Dr. E. S. Mayer*

Musculoskeletal System

The general goals of the course on the Musculoskeletal System are to acquaint the student with the normal development structure and function of the musculoskeletal system and to introduce him to the normal physiology and biochemistry of bone cartilage, synovium, and muscle. The pathological conditions altering normal structure, function, and biophysiology of the musculoskeletal system will be introduced and applied to the diagnosis and treatment of patients with musculoskeletal pathology. *Dr. Frank Wilson*

Skin and Connective Tissue

The purpose of this course is to introduce the student to the structure, function and pathology of skin and connective tissue. The following topics

are dealt with specifically: biology of the epidermis, hair and nails; melanocytes and melanin pigmentation; eccrine gland function and disorders of sweating; photobiology and function and abnormalities of the major fibrous and non-fibrous components of connective tissue. Stress is placed on the integration of clinical and microscopic pathology of specific disease states and reaction patterns involving skin and connective tissue. *Dr. Robert Briggaman*

Pathophysiology

This course emphasizes the importance of physiology in some important clinical problems, such as hypoxia, respiratory failure, acid-base disorders, shock, trauma, wound healing, disorders of temperature regulation, pain, etc. Teaching methods include lectures, demonstrations, and conferences. Clinical faculty make a large contribution to this course. 20 clock hours. Spring Semester. *Drs. C. W. Gottschalk and E. R. Perl*

Physical Diagnosis

This second year course is devoted to physical diagnosis and builds on the understanding of the doctor-patient relationship and the interviewing skills developed during the first year of the Introduction to Medicine Course. Large group meetings are held weekly to discuss topics relevant to the basic science courses being studied at the time. The students are also divided into small groups under the direction of clinical faculty preceptors for the study of medical history-taking, physical examination, the use of the problem-oriented record, and the interpretation of laboratory data in the clinical setting. Individual patient assignments on the medical wards are supplemented by small group sessions in the surgical subspecialties and several sessions conducted by the Department of Pediatrics in the approach to the child. The examination of patients during small group preceptorships may be done at AHEC locations. *Dr. Axalla J. Hoole*

Pharmacology

A course designed to present the principles for the scientific use of drugs in modern therapeutics. A basic background in biochemistry and physiology is assumed. The major objective of the course is to enable the student to understand the concepts and facts about drugs so that the process of applying these facts to rational therapeutics may be facilitated. Facts and concepts are presented in self-instructional and lecture formats. The applications are presented as problem-solving sessions. 15 hours a week for 6 weeks. *Drs. Burford, Munson, and Associates*

Radiobiology

This course is designed to acquaint the students with fundamental concepts in the diagnosis, treatment and prognosis of patients with certain malignant diseases. The importance of an interdisciplinary approach (surgery, chemotherapy and radiotherapy) used for dealing with malignant

diseases is stressed. Basic concepts regarding the effects of irradiation upon living tissues are presented. The course is given in the form of classroom lectures, laboratories and the presentation of patients who have received or are undergoing treatment for malignant diseases. *Dr. Gustavo S. Montana*

Reproductive Biology

Seventy-five hours of instruction are given to provide the student with an appreciation of the major contemporary anatomical, physiological and behavioral problems related to human reproduction, growth and development. The student will become familiar with the basic reproduction anatomy of males and females, reproductive endocrinology, biology of germ cells, physiology of pregnancy, fetal growth, physiology of labor, fetal physiology, neonatalogy, problems of population and human sexuality. This basic knowledge will be related to pathological changes to be encountered in clinical medicine. Faculty of various departments. *Dr. E. H. Bishop*

Urinary System

This is a multidisciplinary course which stresses general principles. The objectives of the course are to present the principles of kidney function, to provide an understanding of the factors that determine and control the volume and composition of the body fluids and to discuss the morphological alterations in the diseased kidney and their functional implications. Clinical examples are extensively utilized to illustrate physiological principles. Various teaching methods are utilized, including lectures, multidisciplinary conferences, small group discussions and laboratory exercises. *Dr. William E. Lassiter*

Clerkships

The third year medical student clerkships consist of rotations as follows: Medicine Clerkship, Surgery Clerkship and Life Support Skills Course, Psychiatry Clerkship, Pediatrics Clerkship, and Obstetrics and Gynecology Clerkship.

The coordinator of each clerkship allocates the time within that clerkship to various clinical subspecialities applicable to the body of material to be learned. Please see the appropriate department listing for the course description of each clerkship.

Life Support Skills

During the twelve (12) weeks of Surgery Clerkship, the students rotate through a one-week interdisciplinary course of "Life Support Skills." This course was established by the Faculty under a full-time course director and with the cooperation of the Department of Surgery to provide students (3 or 4 at a time) with opportunity to focus attention on the basic concepts, attitudes and skills needed to support life in the emergency situation.

Electives

In addition to courses of the three academic years, requirements for the medical degree also include 7 or 8 electives, each of four weeks duration. Each student's program must include at least two courses in which the student will have primary responsibility for patient care, and one of the two must be in Family Medicine. Additional electives beyond the minimal requirement may be arranged if the student wishes. Portions of the electives program may begin at the completion of the first year, and with appropriate programming the student may complete his medical degree in three calendar years.

Each student's elective program is related to his career objectives and must be approved by his advisors, the Electives Committee of the Faculty, and the Dean or his designee. Opportunities for specialized clinical activities are offered as well as opportunities for in-depth study and investigation in special areas of interest to the student. Approved electives may include educational programs in other schools of the University, in other universities, in other clinical settings in the state, and in foreign countries.

Over 200 electives are currently listed as approved courses open to medical students. Elective courses are described on subsequent pages under the individual departmental listings.

Elective selection is coordinated through the Dean's Office of the School of Medicine under the supervision of the Committee for Elective Programs. Students interested in scheduling an elective should make arrangements through the Dean's Office and must comply with regulations published by the Committee for Elective Programs.

DAILY SCHEDULES—First Year, 1975-1976

Fall Semester Classes: 27 August-19 December

Monday (15 Days)	Tuesday (16 Days)	Wednesday (16 1/2 Days)	Thursday (16 Days)	Friday (16 Days)
Cell Biology 8/27-12/19 8:00-1:00	Gross Anatomy 8/28-12/18 8:00-11:00	Cell Biology 8/27-12/19 8:00-1:00	Histology 8/28-12/18 8:00-11:00	Cell Biology 8/27-12/19 8:00-10:00
	Histology 8/28-12/18 11:00-1:00		Cell Biology 8/27-12/19 11:00-12:00	Introduction to Medicine 8/29-12/19 10:00-1:00
			Gross Anatomy 8/28-12/18 12:00-1:00	
1:00-2:00	FREE	FREE	FREE	1:00-2:00
			Gross Anatomy 8/28-12/18 2:00-5:00	

Spring Semester Classes: 5 January-19 May

Monday (16 Days)	Tuesday (17 Days)	Wednesday (17 Days)	Thursday (17 Days)	Friday (17 Days)
General Pathology Immunology, & Microbiology 1/5-5/7* 8:00-1:00	Gross Anatomy 1/6-2/26 8:00-12:00	General Pathology Immunology, & Microbiology 1/5-5/7* 8:00-1:00	Gross Anatomy 1/6-2/26 8:00-12:00	General Pathology Immunology, & Microbiology 1/5-5/7* 8:00-1:00
	Neurobiology 3/2-5/7** 8:00-1:00		Neurobiology 3/2-5/7** 8:00-1:00	
1:00-2:00	FREE	FREE	FREE	1:00-2:00
####	####	####	Introduction to Medicine 1/8-5/6 2:00-5:00	####

Note: Reading periods and final examinations: May 8-19.

*General Pathology, Immunology, and Microbiology meets each Monday, Wednesday, and Friday except for 4/30 & 5/7 which are assigned to Neurobiology.

**Neurobiology meets on Tuesday and Thursday except for 4/30 & 5/7 which fall on Friday.

####Student group sessions, interviewing portion of Medicine course.

DAILY SCHEDULES—Second Year, 1975-1976

	Monday	Tuesday	Wednesday	Thursday	Friday
8 a.m.-1:00 p.m.	←		Cardiovascular-Respiratory System 8/27-10/2		→
	←		The Urinary System 10/3-10/17		→
	Pharmacology 10/20-11/26*	Hematology 10/21-11/6	Pharmacology 10/20-11/26*	Hematology 10/21-11/6	Pharmacology 10/20-11/26*
	Endocrine System 12/1-1/12**	*Gastrointestinal System 11/11-12/18**	Endocrine System 12/1-1/12**	*Gastrointestinal System 11/11-12/18**	Endocrine System 12/1-1/12**
	Reproductive Biology 1/14-2/16	Pathophysiology & Biochemistry Topics in Clinical Medicine 1/6-2/5	Reproductive Biology 1/14-2/16	Pathophysiology & Biochemistry Topics in Clinical Medicine 1/6-2/5	Reproductive Biology 1/14-2/16
		Skin & Connective Tissue 2/10-2/18***		Skin & Connective Tissue 2/10-2/18***	
	←		Musculoskeletal System 2/19-3/3		→
	←		Radiobiology 3/4-3/16**		→
1 p.m.	←		FREE TIME		→
2 p.m.	Introduction to Psychiatry 8/27-3/15	Medicine and Society 9/2-3/16	Introduction to Psychiatry 8/27-3/15	####	####
3 p.m.	####		Physical Diagnosis (lecture) 8/27-3/3	####	####
4 p.m.	####	####	####	####	####
	Full-time assignment to Physical Diagnosis 3/18-3/31				

Note: Reading period and examinations, April 1-13.

*Pharmacology meets instead of Gastrointestinal System on Tuesday, 11/25.
**Vacation falls within the time period of this course.
***Skin and Connective Tissue meets on Tuesday and Thursday except for 2/18 which is Wednesday.
####Student group sessions in clinic.

FIRST-YEAR CURRICULUM 1975-1976

Subject	*Clock Hours*
Cell Biology	208
General Pathology	105
Gross Anatomy	176
Histology	80
Immunology	40
Introduction to Medicine	99
Microbiology-Virology	100
Neurobiology	100
	908

SECOND-YEAR CURRICULUM 1975-1976

Subject	*Clock Hours*
Biochemical Topics in Clinical Medicine	25
Cardiovascular-Respiratory Systems	130
Endocrine System	65
Gastrointestinal System	50
Hematology	30
Introduction to Psychiatry	50
Medicine and Society	52
Musculoskeletal System	50
Pathophysiology	25
Pharmacology	90
Physical Diagnosis	84
Radiobiology	20
Reproductive Biology	75
Skin and Connective Tissue	20
Urinary System	55
	821

THIRD AND FOURTH YEARS CURRICULUM 1975-1976

Subject	*Duration**	*Course Value (semester hours equivalent)*
CLERKSHIPS (Unbroken blocks of time)		
Medicine	12 weeks	12
Surgery & Life Support Skills Course	12 weeks	12
Pediatrics	6 weeks	6
Psychiatry	6 weeks	6
Obstetrics-Gynecology	6 weeks	6
		42
ELECTIVES, 11 Periods Available at 4 weeks each		
See Courses of Instruction	28 weeks**	42
SEMINARS		
See Courses of Instruction	Variable	0
		42

*The academic year is available by individual assignment, since students are scheduled on a rotational basis.

**Seven to eight elective courses are required including two in which the student will have primary responsibility for patient care; one of the two patient responsibility electives must be in Family Medicine. Individual programs are subject to approval. Additional electives may be taken for credit.

COURSES OF INSTRUCTION[1]

The curriculum for medical students is described in the preceding pages. The departmental listings which follow show instruction offered to students in specialized areas.

DEPARTMENT OF ANATOMY

Professors: H. S. Bennett *(Chairman),* R. S. Bear, W. C. George (Emeritus), O. W. Henson, Jr., W. H. Hollinshead, C. W. Hooker, C. T. Kaylor (Emeritus), W. E. Koch, E. K. MacRae, W. S. Pollitzer, W. E. Stumpf, C. D. Van Cleave (Emeritus)
Visiting Professor: F. R. Weedon (Emeritus)
Associate Professors: R. L. Montgomery, R. Peach, A. Rustioni, M. C. Singleton
Assistant Professors: C. W. Carter, Jr., L. D. Grant, A. L. Kierszenbaum, D. M. Lay, H. E. Mayberry, P. Petrusz, M. P. Remler
Instructor: G. H. Albrecht
Post Doctoral Fellows: Ben Garrison, George Greeley
Graduate Assistants: Emily Christian, Leland Ellis, Douglas Gibson, Susan Hadler, Aileen Heritage

Courses for Physical Therapists

92. HISTOLOGY (2). Study of the microscopic anatomy of fundamental body tissues. For students of physical therapy. *Two lecture and three laboratory hours a week for nine weeks, fall.* Singleton, staff.

93. NEUROANATOMY (3). An introductory study of the central nervous system. Lecture and laboratory. For students of physical therapy. *Spring.* Singleton.

191ab. GROSS ANATOMY (Physical Therapy 191ab) (8). Prerequisites, Zoology 11 and Zoology 41 or equivalents and permission of instructor. *Two lecture, one conference and six laboratory hours a week, fall; two lecture, one conference and nine laboratory hours for four weeks, spring.* Singleton.

193. FUNCTIONAL NEUROANATOMY (Physical Therapy 193) (3). Prerequisites, Anatomy 191, Anatomy 107 or equivalent and permission of instructor. Study of basic structure of the brain and spinal cord, including both lecture and laboratory. *Four hours a week.* Primarily for students of physical therapy. *Spring, summer.* Singleton.

Courses for Radiologists

90. INTRODUCTION TO HUMAN ANATOMY (3). A general course primarily for persons preparing for careers as radiologists. *Two lectures and two laboratory hours a week, fall.* Montgomery, Christian.

Courses for Students in The School of Dentistry

41ab. INTRODUCTION TO HUMAN ANATOMY (3). A general course primarily for persons preparing for careers as dental hygienists. *Two lecture and two laboratory hours a week, fall and spring.* Montgomery, staff.

111fs. GROSS AND MICROANATOMY (8). Primarily for students of Dentistry. *Four hours a week, fall and spring.* Peach, Mayberry, Montgomery.

124s. BIOLOGICAL SCIENCE LABORATORY (4). Primarily for students of Dentistry. *Eight hours a week, spring.* Staff.

202ab. BIOLOGICAL ELECTRON MICROSCOPY (Dentistry 202ab) (2). Prerequisite, permission of instructor. *Conference thirty hours.* Peach.

---

[1] The listing of a course in the catalogue does not obligate the University to give the course in any particular year.

204. CONGENITAL MALFORMATION OF THE OROFACIAL REGION (Dentistry O.B. 204) (1). Prerequisite, permission of instructor. *Spring.* Staff.

207. REGIONAL ANATOMY (3). Prerequisite, permission of instructor. For students of oral surgery, surgical residents, graduate students. *Fall, spring, summer sessions.* Montgomery.

212ab. CYTOCHEMISTRY AND HISTOCHEMISTRY (Dentistry O.B. 212ab) (2). Prerequisite, permission of instructor. Hanker, staff.

222. SEMINAR IN STRUCTURAL AND HARD TISSUE PROTEINS (Dentistry O.B. 222) (1). Prerequisite, permission of instructor. *Spring.* Mechanic.

233ab. CURRENT TOPICS IN BASIC SCIENCE (Dentistry O.B. 233ab) (2, 2). Primarily for Dental students. Open to a few Anatomy students with permission of instructor. *Conference sixty hours, fall and spring.* Staff.

Courses for Students in The School of Medicine and Open to Suitably Qualified Graduate Students

104. EMBRYOLOGY (2). Prerequisite, permission of instructor. An introductory study of normal and abnormal human development, including fertilization, cleavage, placentation, early body formation and organogenesis. *Spring.* Koch, Mayberry.

107ab. GROSS ANATOMY (7). Prerequisite, permission of instructor. *One lecture, six laboratory, fall; two lecture, six laboratory, eight weeks of spring.* Primarily for medical students. Graduate enrollment limited by availability of space and material. Albrecht, Henson, Hooker, Hollinshead, Kimmel, Lay, Pollitzer, Wiggins.

401. SURGICAL ANATOMY (6). Prerequisite, permission of instructor. Primarily for fourth year medical students interested in surgery. Emphasis on anatomical detail. *30-35 laboratory hours per week for one elective period (10).* Hollinshead.

Courses Primarily for Graduate Students

101. NEUROANATOMY (Neurobiology 101) (5). The central nervous system and organs of special sense. *Three lecture hours and four laboratory hours a week, spring.* Rustioni, Grant.

103. EMBRYOLOGY (2). Prerequisite, permission of instructor. An introductory study of normal and abnormal human development, including fertilization, cleavage, placentation, early body formation and organogenesis. *Spring.* Mayberry, Koch.

112. HUMAN ORIGINS (Anthropology 112) (3). *Three lecture hours a week, fall.* Holcomb.

114. DEVELOPMENTAL TISSUE INTERRELATIONSHIPS (2). Prerequisite, permission of instructor. Lectures and seminar discussions on the development, differentiation and interaction of embryonic and adult tissues. *Fall.* Koch.

115. GENETICS AND HUMAN EVOLUTION (Anthropology 115) (Genetics 115) (3). Prerequisite, Introductory Biology, or permission of the instructor. Fundamental principles of genetics; population genetics; genetic equilibrium; race and species formation; the factors of evolution; and the relation of these principles of man and the primates. *Three lecture hours a week, spring.* Pollitzer.

116. RESOLUTION OF BIOLOGICAL STRUCTURES (4). Prerequisite, permission of instructor. Physical principles involved in the resolution of biological fine structure by means of standard, ultraviolet, phase, interference, polarization and electron microscopes. The lens-less methods of laser holography and X-ray diffraction. *Four lecture hours a week, fall.* Bear.

117. STRUCTURAL MOLECULAR BIOLOGY (4). Prerequisite, Anatomy 116, permission of instructor. The ultrastructure of particulate, fibrous, and membranous components of cells and tissues, formed from nucleic acids, proteins, lipids and polysaccharides, as revealed by microscopic and X-ray diffraction methods. Two two-hour lectures each week, illustrated and pertinent diffraction patterns and electron micrographs. *Four lecture hours a week, spring.* Bear.

118. NEUROENDOCRINOLOGY (Pharmacology 118) (Neurobiology 118) (2). Prerequisite, permission of instructor. A review of presently held concepts in neuroendocrinology with emphasis on topographical aspects of brain structures related to hormone action. *Spring, 1976 and alternate years.* Stumpf.

119. FUNCTIONAL ANATOMY OF MAMMALIAN REPRODUCTION (3). Prerequisite, permission of instructor. Structural and functional basis of mamalian reproduction, including sex differentiation, germ cells and fertilization, reproductive cycles, pregnancy and lactation, and artificial control of reproduction. *Spring, 1975 and alternate years.* Petrusz.

200. ADVANCED GROSS ANATOMY (8), Prerequisite, permission of instructor. An exploration, through lectures and laboratory, of the detailed gross anatomy of the human body. *Two lecture, four laboratory hours per week, fall and spring.* Hollinshead.

203. ANATOMY OF THE INFANT (2). Prerequisites, Anatomy 107, embryology. Dissection of the infant of fetus, supplemented by lectures dealing with the anatomic attributes of the infant, developmental anatomy, and the origin of certain malformations. *Fall.* Hooker.

205. TOPICS IN ANATOMY (1). Prerequisites, Anatomy 101, 103, 107, and permission of instructor. A seminar devoted to the literature dealing with representative problems in morphology. *Spring, 1975 and alternate years.* Hollinshead, Hooker.

206. SEMINAR IN FINE STRUCTURE (2). Prerequisite, permission of instructor. Reading and student presentation on selected topics from the current literature on fine structure of cells and tissues. *Spring.* MacRae.

208. HISTOLOGY & ORGANOLOGY (5). Prerequisites, Biology 21, 22; Chemistry 11, 11L, 21, 21L, 61, 62; Physics 24, 25 or the equivalent of these courses; permission of instructor. The study of the structure of tissues and organs using the light microscope and electron micrographs. *Fall.* Bennett.

310. RESEARCH (2 or more). Credit to be arranged in individual cases. *Fall, spring, summer sessions.* Staff.

DEPARTMENT OF ANESTHESIOLOGY

Professor and Chairman: Kenneth Sugioka
Professor: Robert A. Mueller
Associate Professors: Trevor Hughes, Enid R. Kafer, Kenneth Levin, Joseph F. Patterson, David R. Brown, Peter V. Scott
Assistant Professors: Albert A. Bechtoldt, Jr., Jawahar N. Ghia, Kenneth Haslam, Edward W. Davidian, Edward A. Norfleet
Clinical Professor: Heriberto Ferrari
Clinical Associate Professor: Rodney McKnight
Clinical Assistant Professors: Arthur E. Leake, Jr. James H. Robinson, Kathryn Greenhoot
Clinical Instructors: R. Bruce Steinbach, Stanley Engle, Ryland Vest

Third and Fourth Year

Students may choose Anesthesiology for four week elective periods during their elective time. The student functions as an acting intern assisting with or carrying out procedures in Clinical Anesthesiology. He also receives practical and didactic teaching in respiratory physiology, including acid base balance and in Clinical Pharmacology. The student obtains instructions in the treatment of comatose patients including artificial ventilation and in the management of acute circulatory and respiratory disorders.

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY

Professors: G. P. Manire[1] *(Chairman),* W. R. Straughn, W. J. Cromartic, J. H. Schwab, D. G. Sharp, J. K. Spitznagel, H. Gooder, J. E. Larsh (Parasitology), M. S. Silverman, M. L. Tyan, G. Haughton, W. A. Clyde, Jr., J. S. Pagano, D. A. MacPherson[2]

Associate Professors: W. J. Yount, K. Bott, R. Twarog, M. H. Edgell, C. A. Hutchinson III, P. F. Sparling, J. J. Fischer

Assistant Professors: J. D. Folds, J. B. Baseman, J. D. Newbold, Priscilla Wyrick, G. Wertz, F. P. Avis, N. M. Hadler, L. R. McCarthy, M. McGinnis, M. D. Sobsey, S. L. Bachenheimer

Assistant Professor in Medical Technology: L. M. Ward

Instructors: B. F. Maxwell, W. Rumpp

Lecturer in Bacteriology: J. J. Crawford

Research Associates: S. K. Anderle, R. R. Brown, J. Shaw

Postdoctoral Trainees: M. Andrews, R. Floyd, P-S Hu, S. C. Lin, L. Hutt, J. A. Lantenberger, R. F. Rest, G. Babcock, N. Hunter, M. J. Selgrade

Research Assistants: I. Avis, C. H. Huang, J. Proctor, J. Kostya, M. C. Smith

Research Trainees: E. Allen, C. Brantner, E. Calamai, D. Callahan, F. Courts, B. Colby, N. Cozart, J. Daly, D. Edwards, M. Farrell, J. Greenblatt, J. Groelke, J. Haynes, N. Kan, B. Kilpatrick, D. Livesay, L. Marnell, J. Mandelkorn, R. Mullins, J. Nichols, C. Pavia, S. Potter, K. Pryzwansky, E. Ruley, J. Simmons, P. Teague, J. Ware

Graduate Assistants: L. Beierwaltes, C. Biron, D. Freymeyer, L. Lanier, J. Nelson, H. Prince, M. Saddler, T. Sox, S. Taffet

This department offers instruction in the Schools of Medicine, Nursing, Dentistry, Pharmacy, and Arts and Sciences, and conducts an active program in the Graduate School for students seeking the Ph.D. degree. Details of these programs can be found in the Graduate School catalog.

The following courses are available as senior electives in the School of Medicine: Bacteriology 115, Bacteriology 151, Bacteriology 161, Bacteriology 210, Bacteriology 211, Bacteriology 212, Bacteriology 213.

51. ELEMENTARY BACTERIOLOGY (4). Required for pharmacy students. Prerequisites, Chemistry 11-12 or 11-21. Covers the general principles and techniques of bacteriology and the relations of these organisms to sanitation, agriculture, medicine and industry. *Three lecture and two laboratory hours a week, spring semester.* Manire, Straughn.

55. ELEMENTARY PATHOGENIC MICROBIOLOGY (4). Required for nursing and dental hygiene students; other students by permission of the Department. Prerequisites, Chemistry 11-12 or 11-21. A course covering the fundamental principles of microbiology; the relations of microorganisms to disease; modes of infection, and the etiologic agents of the important infectious diseases. *Three lecture and two laboratory hours a week, fall semester.* Wyrick.

---

[1] Kenan Professor.

[2] Professor Emeritus.

100. BIOLOGY AND BIOCHEMISTRY OR MICROORGANISMS (5). Prerequisites, Biology 21, 22 *or* Zoology 11 *or* Botany 11, *and* Chem. 61 *or* their equivalents *or* permission of instructor. The structure and function of bacteria and viruses and their chemical and genetic relationships are stressed. Their use as model systems for genetic, developmental and environmental studies is also explored. *Three lecture and four laboratory hours, fall.* Twarog, Bott.

101. INFECTION AND IMMUNITY (5). Prerequisites, Biology 103, Chemistry 61 and permission of the Department. The biology of pathogenic microorganisms, infectious disease and the immune response. Includes molecular and cellular basis of antibody formation, hypersensitivity, resistence to infection, immunochemistry, and mechanisms of pathogenesis. *Three lecture, four laboratory hours, fall.* Schwab, Baseman.

112. INTRODUCTION TO MICROBIOLOGY (2). Open only to dental students. A course covering basic aspects of microbiology including sterilization, disinfection, action of antimicrobial chemotherapeutic agents, concepts of infection and immunity and the study of certain selected infectious agents. *Twenty-eight lecture hours and seven laboratory hours, spring.* Manire, Silverman, Straughn.

115. SPECIAL TOPICS IN BACTERIOLOGY OR IMMUNOLOGY (3 or more each semester). Permission of the Department required except for Department majors. Designed to introduce the student to research methods. Minor investigative problems are conducted with advice and guidance of the staff. *Hours and credit to be arranged, any term.* May be repeated for credit two or more semesters. Staff.

151. GENERAL BACTERIOLOGY (4). Prerequisites, Chemistry 11-12 or 11-21. Open only to majors in departments other than Bacteriology. Covers the general principles and techniques of bacteriology and the relations of these organisms to sanitation, agriculture, medicine, and industry. *Three lecture and two laboratory hours a week, spring semester.* Manire, Straughn.

161. ADVANCED MICROBIOLOGY AND IMMUNOLOGY (6). Permission of the Department required except for Department majors. Current concepts of the chemistry, structure, physiology and genetics of bacteria and viruses are presented, as they relate to growth, metabolism, variation and action of antimicrobial agents. Instructions in techniques and instrumentation relevant to advanced microbiological studies are given. *Six lecture hours a week, spring semester.* Staff.

201, 202. SEMINAR IN MICROBIOLOGY (1 each). Discussion of selected topics in microbiology. *One lecture hour a week, fall and spring.* Staff.

210. SEMINAR/TUTORIAL IN MICROBIAL CHEMISTRY AND GENETICS (3). Prerequisite, Bacteriology 161. One or two faculty and a small number of students will consider in depth current research of importance. Emphasis will be on current literature, invited speakers, etc., rather than textbooks. *Fall.* Staff.

211. SEMINAR/TUTORIAL IN ANIMAL VIROLOGY (3). Prerequisite, Bacteriology 161. One or two faculty and a small number of students will consider in depth current research of importance. Emphasis will be on current literature, invited speakers, etc., rather than textbooks. *Fall.* Staff.

212. SEMINAR/TUTORIAL IN IMMUNOLOGY (3). Prerequisite, Bacteriology 161. One or two faculty and a small number of students will consider in depth current research of importance. Emphasis will be on current literature, invited speakers, etc. rather than textbooks. *Fall.* Staff.

213. SEMINAR/TUTORIAL IN THE BIOLOGY OF CANCER: VIRUSES AND THE IMMUNE RESPONSE (3). Prerequisite, Bacteriology 161. One or two faculty and a small number of students will consider in depth current research of importance. Emphasis will be placed on current literature, invited speakers, etc., rather than textbooks. *Fall.* Staff.

275. GENETICS SYSTEMS (3). An advanced course open to students in genetics and required for trainees in genetics. Each member of the Curriculum in Genetics will present information and problems in the areas of his specialization and the organism with which he works. *Fall.* Staff.

301. RESEARCH (5 or more each semester). Permission of the Department required. Opportunity is offered properly prepared students to undertake research in clinical bacteriology, immunology, virology, microbial genetics, or bacterial physiology. *Hours and credit to be arranged, any term.* This course may be repeated for credit two or more semesters. Staff.

393. MASTER'S THESIS.

394. DOCTORAL DISSERTATION.

DEPARTMENT OF BIOCHEMISTRY AND NUTRITION

Professors: J. L. Irvin[1] *(Chairman),* C. E. Anderson, M. K. Berkut, M. Caplow, E. Glassman, J. Hermans, H. S. Kingdon, M. A. Lipton, G. L. Mechanic, J. C. Parker, R. Penniall, C. P. Piantadosi, H. A. Schneider, G. K. Summer, R. H. Wagner, J. R. White, J. E. Wilson, R. V. Wolfenden

Associate Professors: F. E. Bell, D. J. Holbrook, Jr., D. G. Kaufman, R. L. Lundblad, P. Morell, S. N. Nayfeh, J. Savory

Assistant Professors: C. W. Carter, Jr., C. B. Chae, S. G. Chaney, R. E. Cross, D. M. Frazier, K. A. Koehler, B. R. Lentz, K. Marushige, J. M. McDonagh, G. W. Meissner, D. W. Stafford, B. R. Switzer

Research Assistant Professors: K. K. Kumaroo, D. M. Pett, D. F. Wentworth

Instructors: G. Mitchell, B. R. Zeeberg

Lecturer: H. C. Smith

Adjunct Assistant Professor: E. O. Oswald

Research Associate: G. A. Mason

Post-Doctoral Fellow-Trainees: D. B. Carter, J. Diez, N. S. Hanna, M. Williams

Predoctoral Fellows and Trainees: A. A. Smith, D. L. Straight, H. F. Tiano

Teaching and Research Assistants: J. A. Alderman, R. M. Berko, J. D. Bernstein, J. R. Bucher, J. A. Cavagnaro, M. L. Chiu, W. S. Cozart, S. P. Crouse, W. H. Curley, K. A. Daniel, P. H. Efird, M. W. Franco, D. E. Freer, R. A. Gadski, P. H. Gray, W. G. Harrelson, C. T. Hodges, J. P. Hullihan, H. W. Jarrett, S. W. King, W. J. Kinnier, V. K. Kommineni, N. J. Kotite, F. C. Kull, L. F. Levinger, C. A. Lewis, D. N. McKinley, B. M. Moore, T. M. O'Shea, S. S. Padilla, D. M. Rider, H. L. Rizi, D. A. Ross, S. J. Shearin, J. R. Shipe, R. M. Shipley, C. R. Shoaf, J. M. Sperrazza, J. G. Toffaletti, L. P. Vaughan, D. K. Walmer, S. N. Walters, S. C. Weddington, L. L. Wells, M. A. Whiting

Courses Offered for Undergraduate Students

Students interested in a B.A. degree with emphasis in biochemistry are advised to consider the A.B. in Chemistry degree with optional Biochemistry courses. The required courses are:

For the A.B. with a major in Chemistry, the required courses are: Chemistry 11, 11L, 21, 21L, 41, 41L, 42, 42L, 61, 62, 170L and at least one course from each of the following groupings: 51 or 150; 180, 181, or 183; Biochem 100[2] (Chem 107, Zool 107) or Chem 171L.[3] Physics 24 and 25 or Physics 26 and 27 are required. Math 31 or Math 31C is also required. Math 32 or Math 32C is strongly recommended.

---

[1] Kenan Professor.

[2] Biochem 100 (Chem 107, Zool 107) has a prerequisite of one Biology course (Biol 21 or Zool 11 recommended).

[3] For students choosing Biochem 100 (Chem, Zool 107), Biochem 100L is also recommended; fourth-year science electives may include biochemistry courses numbered in the 100 series as listed below.

7. INTRODUCTION TO BIOCHEMISTRY (4). Permission of instructor required for students other than Nursing students and students in the Medical Allied Health Professions. Not open to Dental Hygiene or Predental Hygiene students. Breakage deposit required. *Three lecture hours and one two-hour laboratory a week, fall.* Berkut.

8. INTRODUCTION TO BIOCHEMISTRY (4). Permission of instructor required for students other than Nursing students and students in the Medical Allied Health Professions. Not open to Dental Hygiene or Predental Hygiene students. Breakage deposit required. *Three lecture hours and one two-hour laboratory a week, spring.* Berkut.

7d. INTRODUCTION TO BIOCHEMISTRY (4). Open only to students in Dental Hygiene. Breakage deposit required. *Three lecture hours and one two-hour laboratory a week, fall.* Lentz.

8d. INTRODUCTION TO BIOCHEMISTRY (3). Open only to students in Dental Hygiene. *Three lecture hours a week, spring.* Lentz.

22. FUNDAMENTALS OF NUTRITION (3). Prerequisites, Biochemistry 7 and 8 or Chemistry equivalents. (A course in, or some familiarity with, Organic Chemistry is desirable.) Open to students in the Health Sciences. Others with permission of the instructor. Caloric requirements of humans at all ages are considered. Physiological needs for foodstuff, bioelements and accessory food factors are evaluated with respect to dietary balances and diet therapy. *Three lectures a week, spring.* Berkut.

Courses for Graduates and Advanced Undergraduates

100. BIOCHEMISTRY FOR STUDENTS OF BIOLOGY AND CHEMISTRY (3). Prerequisites, Chemistry 61 and one course in biology. Lectures on the mechanism and regulation of reactions in living organisms, with emphasis on general principles. Protein structure and enzyme function; central pathways in intermediary metabolism; metabolic control; expression of genetic information; molecular disease. *Spring.* Wolfenden; others.

100L. BIOCHEMISTRY LABORATORY (2). Prerequisite or corequisite, Biochemistry 100. Laboratory for Biochemistry 100. Includes experiments on cell growth, subcellular fractionation, isolation and kinetic studies on enzymes, intermediary metabolism; preparation and biosynthesis of macromolecules, fractionation of lipids, including modern research techniques in biochemistry. *Four laboratory hours a week, spring.* Chae, Marushige.

101a. BIOCHEMISTRY FOR DENTAL STUDENTS (2). Prerequisites, Chemistry 61, or equivalents. This course may be taken by graduate students who are not majoring in biochemistry. *Fall.* Staff.

101b. BIOCHEMISTRY FOR DENTAL STUDENTS (2). Continuation of 101a. *Spring.* Staff.

103. COMPARATIVE AND EVOLUTIONARY BIOCHEMISTRY (3). Prerequisite, Biochemistry 100 or Biochemistry 105. Lectures and discussions dealing with various evolutionary solutions to conducting essential biological processes such as osmotic regulation, respiration, nitrogen metabolism and energy storage. *Spring.* Morell, Domnas, Humm.

105, 106. INTRODUCTION TO BIOCHEMISTRY AND MOLECULAR BIOLOGY (5 each). Prerequisites, Chemistry 61, 62 or equivalents, and Biochemistry 100 or equivalent, or permission of course coordinator. Knowledge of calculus is recommended. Permission of the course coordinator to waive the prerequisite for

Biochemistry 100 or its equivalent will be given to otherwise qualified students who are aware of the advanced nature of this course. An advanced, intensive survey of basic aspects of biochemistry, designed for students who intend to use biochemical concepts extensively during their research careers. Students whose need can be met by a less demanding course are advised to take one of the introductory courses offered by the Department. *Five lecture hours per week, fall, spring.* Staff.

130. PROTEIN CHEMISTRY (Chemistry 130) (3). Prerequisites, Chemistry 61, 62 or equivalent. Topics will include: structural properties of proteins; active site chemistry; chemical modification of proteins; metalloproteins; coenzyme-enzyme interactions; organization of enzyme systems. *Three lecture hours a week, spring.* Hiskey, Harrison.

131. NUCLEIC ACID CHEMISTRY AND ENZYMOLOGY (Chemistry 131 (3). Prerequisites, Biochemistry 100, or 105-106, or equivalent or permission of coordinator. A study of the reactions and properties of nucleic acids, the enzymes involved in their synthesis and degradation, and the role of RNA in protein synthesis. *Spring, 1976 and alternate years.* Holbrook (Coordinator).

132. ENZYME MECHANISMS AND KINETICS (Chemistry 132) (3). Prerequisites, Biochemistry 100 or 105. A detailed discussion of enzyme catalysis; principles of catalysis; enzyme kinetics; the active sites of enzymes; allosteric interactions between subunits; the mechanisms of coenzyme catalyzed reactions. *Fall.* Caplow, (Harrison).

133. PHYSICAL BIOCHEMISTRY (3). Prerequisites, Biochemistry 105, Mathematics 31, Chemistry 181, 182 or equivalent. This course will cover physiocochemical approaches to biochemical research. Examples of topics are: Conformational analysis of proteins, principles of x-ray diffraction of proteins, ultracentrifugation, optical methods, fast reaction kinetics. Both the practical aspects and the theoretical background of each method will be discussed. *Fall.* Hermans, Carter.

134. STRUCTURE OF BIOLOGICAL MACROMOLECULES (3). Prerequisite, Biochemistry 133 or permission of the instructor. A discussion of physical techniques for the determination of the conformation of macromolecules with examples chosen among biological polymers: Statistics of random polymer chains, hydrodynamic properties, light scattering, X-ray diffractions of fibrous and crystalline proteins, thermodynamic and statistical mechanical approaches to the stability of helical molecules, calculations of proteins structure. *Spring, 1976 and alternate years.* Hermans, Carter.

137. MEMBRANE CHEMISTRY (Chemistry 137) (3). Prerequisites, Chemistry 62, Biochemistry 100, Zoology 11. Corequisites, Chemistry 180, 181 or 183, or equivalent preparation, or consent of instructor. An introduction to the structure and function of biological membranes and related topics. Special emphasis will be given to basic principles and general theories. Specific membrane systems will be discussed as examples of these principles and theories. *Spring.* Meissner, Penniall, Harrison, Hiskey.

140. CLINICAL CHEMISTRY (3). Prerequisite or corequisite, Biochemistry 100 or equivalent. Permission of the instructor. Techniques for the measurement of chemical constituents in biological materials and significance of laboratory measurements in the study of human disease. *Three lecture hours per week, fall.* Savory, Killingsworth, Cross.

165. MOLECULAR GENETICS (Zoology 165) (3). Prerequisite, a genetics course; Zoology 164 also recommended. The genetics of prokaryotes and model systems for understanding the duplication, transcription, repair, mutagenesis and coding of nucleic acids. *Three lecture hours a week, fall 1976 and alternate years.* Staff.

Courses for Graduates

204. BIOCHEMICAL PREPARATIONS (5). Prerequisite, Biochemistry 105, or equivalent. A laboratory course in the preparation of compounds of biological interest and the analytical methods for testing their purity. *Ten laboratory hours a week, either semester.* Staff.

207. ADVANCED BIOCHEMISTRY LABORATORY (4). Corequisite, Biochemistry 105. A laboratory course designed to acquaint graduate students majoring in Biochemistry with the equipment and methods used in modern biochemical research. *Twelve laboratory hours a week, fall or spring.* Staff.

224. BIOCHEMISTRY OF LIPIDS (3). Prerequisite, Biochemistry 106, or equivalent. A systematic and in-depth coverage of present knowledge of the chemistry and metabolism of lipids. Special emphasis will be placed on complex lipids. Lipoproteins, and the role of lipids in biological membranes and enzyme systems. *Spring, 1977 and alternate years.* Lentz, Anderson, Oswald, Nayfeh, Morell, Meissner.

225. BIOENERGETICS (3). Prerequisite, Biochemistry 106, or equivalent. A consideration of the mechanisms for the conservation and interconversion of (free) energy in living systems. A seminar course. *Fall, 1977 and alternate years.* Penniall.

226. REGULATORY MECHANISMS (3). Prerequisites, Biochemistry 105, 106 or equivalent, or by permission of the instructor. This is a lecture course designed to acquaint advanced students with recent research of a number of faculty members in the biological sciences who have a primary interest in biochemical regulation. The lectures will provide a forum for discussions on recent fundamental correlative research in regulatory mechanisms involving the following areas: DNA duplication, RNA synthesis, biochemical cytology, intermediary metabolism (allosteric and hormonal control of enzyme catalysis), biological transport of small and large molecules, and special bacterial and mammalian systems (including human genetic disorders with membrane defects). *Spring, 1978 and alternate years.* Summer, Chae, Irvin, Bleyman, Brown, Frazier, Holbrook, Nayfeh, others.

227. NEUROCHEMISTRY (Neurobiology 227) (3). Prerequisite, Biochemistry 100, or equivalent. An introductory course in the biochemistry of the nervous system. Topics include aspects of energy metabolism, ion movements, neurotransmitters, intermediary metabolism and the metabolism of macromolecules in the nervous system. *Fall, 1976 and alternate years.* Wilson, Glassman, Morell.

The following Seminar Courses are designed for students who are majoring or minoring in Biochemistry and who wish to further their knowledge in particular areas. Biochemistry 105 is a prerequisite. Unless specified, these courses will be given in alternate years by interested staff members. Students may register for only one seminar a semester but may audit any number. These seminars may not be repeated for credit.

230. SEMINAR IN BIOLOGICAL MACROMOLECULES. I. PROTEINS (3). Prerequisites, Biochemistry 106 and permission of instructor. *Spring, 1977 and alternate years.* Hermans, Carter.

231. SEMINAR IN BIOLOGICAL MACROMOLECULES. II. NUCLEIC ACIDS (3). Prerequisite, Biochemistry 106 or permission of instructor. *Spring, 1977 and alternate years.* Bell, Chaney.

233. SEMINAR IN BIOCHEMICAL REGULATION (3). *Spring, 1977 and alternate years.* Staff.

234. SEMINAR IN PROTEIN BIOSYNTHESIS (3). Prerequisite, Biochemistry 106 or permission of instructor. *Spring, 1978 and alternate years.* Bell.

235. SEMINAR IN CHEMICAL NEUROBIOLOGY (Neurobiology 235) (3). *Fall, 1977 and alternate years.* Wilson, Glassman, Morell.

237, 238. SEMINAR IN BIOPOLYMERS (Chemistry 237-238) (1 per semester). Prerequisite, consent of instructor. *Fall or spring.* (May be repeated for credit.) Caplow, Wolfenden, Harrison.

239. SEMINAR IN ANTIBIOTICS AND ANTIMETABOLITES (3). *Fall, 1976 and alternate years.* White, Piantadosi.

240. SEMINAR IN LIPID METABOLISM (3). *Spring, 1978 and alternate years.* Anderson, Lentz, Oswald.

275. GENETICS SYSTEMS (Bacteriology 275, Genetics 275, Botany 275, Pathology 275) (3). An advanced course in genetics emphasizing the genetics and molecular biology of viruses, bacteria fungi, insects and mammals and based upon the personal research of the staff. Required of all candidates for the degree in Genetics. *Three lecture hours a week.* Staff.

290. SEMINAR IN NEUROBIOLOGY (Neurobiology 290, Pathology 290, Physiology 290, Pharmacology 290, Psychology 290) (3). Prerequisites, one graduate course in the biological sciences and permission of the Director of Neurobiology Curriculum. Selected topics associated with the nervous system and behavior. *Spring.* Members of the Neurobiology Curriculum.

301, 302. RESEARCH IN BIOCHEMISTRY (3 or more). Prerequisite, permission of the Department. *Six or more hours a week, throughout both semesters, when requested.* Staff.

310. RESEARCH IN NEUROBIOLOGY (Neurobiology 310, Pharmacology 310, Physiology 310, Zoology 310, Psychology 310) (3-12). Prerequisites, permission of a staff member and the Director of the Neurobiology Curriculum. Research in various aspects of neurobiology. *Six to twenty-four hours a week, fall and spring.* Members of the Neurobiology Curriculum.

393. MASTER'S THESIS (3 or more). Staff.

394. DOCTORAL DISSERTATION (3 or more). Staff.

400. GENERAL REGISTRATION (0).

DEPARTMENT OF DERMATOLOGY

Professors: Clayton E. Wheeler, Jr. *(Chairman),* Robert G. Crounse (Allied Health Professions), Robert A. Briggaman
Instructor: Ivor Caro
Clinical Professors: George W. Crane, Jr., Frances Pascher, Herbert Z. Lund
Clinical Associate Professor: Elizabeth P. Kanof
Clinical Assistant Professors: Robert N. Davis, John L. Farmer, Robert S. Gilgor, Gloria Graham, Tommy B. Griffin, Richard R. Henderson, Donald D. Leonard, William S. Miller, William A. Phillips, Harry W. Scott, Harry Van Velsor, William S. Logan, John A. Thompson, Frank M. Houston
Clinical Instructors: Samuel B. Pratt, Michael Donahue

Dermatology Electives

401. DERMATOLOGY (6). Activities will include outpatient clinics 5 days a week, ward rounds once or twice a week, 5 conferences or seminars per week, and time for reading. During this elective the student should become proficient in diagnosis and management of most of the common diseases of the skin and he should acquire considerable knowledge of the pathology and physiology of skin. A portion of the time may be spent in the private office of a practicing dermatologist and in outlying AHEC clinics. One to four students may be accommodated for four weeks

at a time (one elective period) except only three students can be accommodated in July and August.

Students who do not match with the course but have a special reason to take it may see Dr. Wheeler to see if arrangements can be made to add another student. Electives might be arranged in Burlington and Wilson, N. C. and Spartanburg, S. C. Students have spent electives in England and elsewhere. Briggaman, Crane, Wheeler.

DEPARTMENT OF FAMILY MEDICINE

Professors: Edward J. Shahady, *Chairman*[1]; Donald L. Dunphy (Pediatrics), *Acting Chairman*[2]; William L. Fleming (Medicine); Harry T. Phillips (Public Health); William P. Richardson (part-time); Cecil G. Sheps (Vice Chancellor); Harvey L. Smith; Glen Wilson (Associate Dean)

Associate Professors: Mario Battigelli (Medicine); James A. Bryan (Medicine); Robert Herrington (Pediatrics); Archie T. Johnson, Jr.[3]; Frank A. Loda (Pediatrics); Donald L. Madison; Eugene S. Mayer; John Noble (Medicine); C. Glenn Pickard (Medicine); Frank T. Stritter; Sarah Lou Warren (Medicine)

Assistant Professors: Philip Anderson; Florence Bearden[4]; William Bobzien (Medicine); Betty E. Cogswell; Peter Curtis; Gordon H. DeFriese; Robert S. Greenberg (Pediatrics); Harvey Hamrick (Pediatrics); Jean Harned; Virginia Hebbert; W. Wallace Hill; Axalla J. Hoole (Medicine); Barbara J. Hulka (Public Health); James Lea; Claudeline Lewis; Virginia Long; David McKay (Medicine); Donald Nagel; John A. Payne; Samuel M. Putnam (Medicine); David D. Schmidt; Catherine Taylor (Psychiatry and Pediatrics); Edward H. Wagner (Medicine and Public Health); George T. Wolff

Instructors: Edward Brooks; Mary Callaway; Vincent Kaval; Blan V. Minton; Frances Muth; Marianna Nicholson; Mary V. Riggsbee; Mary Rogan; Audrey Wall

Lecturers: Earl D. Provancha; Etheride Price; David L. Raney

Clinical Associate Professors: Elaine Goolsby; J. Kempton Jones (Medicine); William S. Joyner (Medicine); Thomas R. Nichols; Fred G. Patterson (Medicine); George R. Tucker (Medicine); Millard W. Wester

Clinical Assistant Professors: Julian S. Albergotti, Robert H. Bilbro, Thornton R. Cleek, Lawrence W. Cutchin, W. Julio DeAngelis, Michael Dugan, James B. Greenwood, Alfred W. Hamer, George Hemingway, Howard Hussey, James G. Jones, Hervy B. Kornegay, Nicholas A. Love, Robert J. Murphy, Cranford O. Plyler, Rose Pully, Robert Shackelford, Peter L. Temple, Beverly Tucker, Henry Vick

Clinical Instructor: William P. Hawkinson (part-time)

Adjunct Professor: Robert Smith

Adjunct Assistant Professor: Manmohan Ranadive

Visiting Assistant Professors: F. G. R. Fowkes[5]; Eric C. Jelly

First and Second Year

Although the Department of Family Medicine does not have full responsibility for any of the required courses in the first two years of medical school, members of the department play a major role in the teaching of the Medicine and Society and Introduction to Medicine courses, and the department provides administrative services and research support for these courses. It is expected that through these courses the student will gain beginning knowledge and skills in social, behavioral, and

---

[1] Appointed Chairman effective January 1, 1976 (part-time January-March; full-time April, 1976).

[2] Effective July 1, 1975 through March 31, 1976.

[3] Promotion, January 1, 1976 and change to part-time.

[4] Resigned, September 1, 1975.

[5] Resigned, December 1, 1975.

clinical aspects of general medical practice which will provide the foundation for more advanced clinical courses, as well as the needed awareness of the great importance of social and family factors in the treatment and prevention of disease.

Fourth Year

410. FAMILY MEDICINE PRECEPTORSHIP. Students will observe and participate in the patient care activities of selected physician preceptors in North Carolina communities or in the Family Practice Unit at N.C.M.H. Student placement will be in practices or sites associated with AHEC in appropriate areas. The activities of the preceptorship will be directed towards: (1) developing the student's understanding of the concepts of family medicine and the role of the family physician, and (2) developing the student's skills in the diagnosis and management of problems commonly encountered by the family physician. The preceptor will review, discuss, and evaluate the student's competence in delivery of primary care.

Between the time students receive the electives schedule and the end of the first Drop-Add period *students must contact* Dr. Archie Johnson, Jr., in the Department of Family Medicine to arrange placement and accommodation and to receive approval for drop-add for this course. Students may drop/add for FMME *only* in the first Drop/Add Period.

Faculty: Faculty of Family Medicine and selected physician preceptors.

Electives

401. COMMUNITY MEDICINE FIELDWORK. Students will observe and participate in the patient care activities of physicians and various health agencies in North Carolina, with practicing physicians and other health personnel serving as preceptors and coordinators for their work in the community. In connection with these experiences the student will develop a project pertaining to health problems and resources of the community. Examples of projects are health screening or education programs; studies of the physician's mode of practice; development of a family health profile; analysis of community health resources and patterns of utilization; and epidemiological studies based on the community. Faculty of the Department of Family Medicine will assist the student in designing and evaluating the experience. As an alternative, students may elect to participate in ongoing student community programs of the Student American Medical Association, the N. C. Department of Human Resources, the National Health Service Corps., etc., although no credit will be given if payment for student participation in these programs exceeds current UNC Medical School guidelines for student stipends. For either of these types of experience, a written report of the student's activities will be required.

This elective will qualify for patient care responsibility only if the student has completed two years of medical school. It may not be substituted for FMME 410.

Faculty: Members of the Department of Family Medicine and preceptors. Prerequisite, one year of medical school.

403. MEDICAL CARE RESEARCH. Opportunities for participation in medical care research are available under the sponsorship of the Health Services Research Center and, in some instances, project directors in various schools of the Division of Health Sciences. Ongoing projects include new medical manpower experiments, services to rural areas without physicians, attempts to improve effectiveness of group practice, evaluation of the content of practices of various types, studies of patients' attitudes, studies of community health planning, etc. Opportunities will be provided when possible for students to investigate problems of special interest even when not connected with ongoing projects. All candidates must be approved by the course coordinator for this elective which is designed to run concurrently with the second-year curriculum.

Faculty: Gordon DeFriese, Director of Health Services Research Center. Prerequisite, one year of medical school and permission of instructor.

404. MEDICAL CARE IN ENGLAND. This program, arranged by the Department of Family Medicine through the Duke Endowment and the King Edward VII Hospital Fund, makes available six all-expense-paid fellowships for a four-week summer program based in London, England. The program is a study of the system of delivery of health services in England and is based partly at the College of the King's Fund in London and partly in the field. Fellowships are available not only to rising fourth-year students but to rising second- and third-year students as well. Selections will be made by the Department of Family Medicine.

Faculty: Wilson and Staff of King's Fund. Prerequisite, one year of medical school.

409. READINGS AND PROJECTS IN COMMUNITY MEDICINE. This elective allows a student to pursue studies of individual interest in some aspect of community medicine by working closely with a member of the University faculty who is also interested in the same field of study. Working individually or in a small group (occasionally with students from other disciplines) the medical student has the opportunity to arrange for elective study in any area so long as it broadly relates medicine to society. For example, activities may range from research and developmental activities in health care delivery programs, to seminars in religion and medicine, to participation in the development of new health legislation, etc.

Programs proposed by the faculty are kept in a book in the coordinator's office where students may review these suggestions. Students may also propose program ideas to the coordinator who will discuss the idea with the student and try to arrange for appropriate faculty supervision.

Depending on the specific project this elective can be conducted during the school year or in a concentrated block of time during a four-week elective period. The average program under this elective, designed to run concurrently with the second-year curriculum, will consist of from 1-5 students.

Faculty: Coordinator—Dr. Eugene Mayer. Prerequisite, year one.

DEPARTMENT OF HOSPITAL ADMINISTRATION

Associate Professors: H. E. Archer *(Acting Chairman)*
Assistant Professors: L. S. Campbell, D. Barry, David Metz
Instructor: J. W. Anderson
Clinical Instructor: C. F. Long
Adjunct Instructors: J. F. Lane, F. Parker, Ruth Bokum, William Considine, Glenn Potter

The Department of Hospital Administration, created in 1962, is involved in a state-wide consultation service to hospitals and related health facilities, conducts research in the field of administrative medicine and hospital operations and is developing educational programs at the graduate and continuing education levels.

DEPARTMENT OF MEDICAL ALLIED HEALTH PROFESSIONS

General Staff: (Divisional Faculty and Program Directors are listed with their divisions or programs)
Professor: Robert G. Crounse *(Chairman)*
Associate Professor: Ella Gray Ennis (Physiology)
Assistant Professors: Janice C. Keene (Vice Chairperson and Radiologic Science), Robert J. Koewing (AHEC)
Adjunct Associate Professor: Frank B. Penta (Health Sciences Consortium)
Adjunct Assistant Professors: John Farris (AHEC), Aldine Guthrie (AHEC), Frank J. Holland (AHEC), Jeanne A. Palmer (AHEC)
Clinical Instructors: Toby Black (DDDL), Judith N. Eastman (DDDL), Cynthia E. Folkes (DDDL), Patricia W. Kirkton (DDDL), Kathleen L. Miller (DDDL), Martha S. Reed (DDDL)

This department has responsibility for certificate, baccalaureate and masters degree programs in a variety of health professions. Criteria for divisional, programmatic and individual faculty status and functions are under continued development. Full divisional status with concordant assumption of responsibilities for student affairs and certificate or degree management has been assigned to Cytotechnology, Medical Technology, Physical Therapy, Radiologic Science and Rehabilitation Counseling. Additional programs with limited present departmental affiliation include Electron Microscopy Technology, Histopathology, Occupational Therapy, Recreation Therapy and Surgeon's Assistant, Type B.

Currently, master's level opportunities are available in Physical Therapy and Rehabilitation Counseling, and under development in Occupational Therapy. Baccalaureate programs include Medical Technology, Physical Therapy and Radiologic Science. Certificate programs include Cytotechnology, Electron Microscopy Technology, Histopathology, and Surgeon's Assistants.

The "allied health professions" are in a state of relatively rapid change, locally and nationally. Interested persons may contact the Department, or the individual programs listed below. Undergraduate students are urged to make early contact.

DIVISIONS

Cytotechnology

Director: Margaret C. Swanton, M.D.
Educational Coordinator: Sandra M. Renwick, B.S.

This twelve-month accredited training program is offered in the Department of Pathology and North Carolina Memorial Hospital, starting each August. It is a certificate rather than an academic credit program, qualifying a trainee to take the national examination given by the Registry of Medical Technologists for certification as a cytotechnologist, a trained specialist in a growing field devoted chiefly to early cancer diagnosis. Fees for the 12 months total about $300, but there is no tuition charge. Some scholarship assistance is available.

Prerequisites are a minimum of two years (60 semester hours) of successfully completed work at an accredited college, which must include at least 12 semester hours of biological sciences. It is recommended that these include anatomy-physiology and/or histology. General chemistry is helpful but not required. Adequate visual acuity for microscopic work is essential.

Training includes microscopy, basic anatomy, physiology, pathology, and cytology of those portions of the body in which cancer and other diseases can be detected by the cytological method, preparation of specimens, and microscopic interpretation of specimens.

Inquiries should be directed to Cytotechnology Training Program, Department of Pathology, School of Medicine, Division of Health Affairs, University of North Carolina, Chapel Hill, North Carolina 27514.

Medical Technology Division

Medical Director: William W. McLendon, M.D., Professor of Pathology
Program Director: Joanne Stephan, Sc.D., M.T.(ASCP), Associate Professor
Education Coordinator: Louise M. Ward, M.P.H., M.T.(ASCP), Associate Professor
Instructor: Sharon Parker, Ph.D.
Clinical Staff: Lanier Ayscue, B.S., M.T.(ASCP); Tom Benton, B.S. Zoology; Janet Callahan, B.S., M.T.(ASCP); Jolynne Campbell, M.S.; Nellie Henline, B.S., M.T.(ASCP); Kenneth Hill, B.S., M.T.(ASCP); Mary Noel Hobbs, A.B., M.T.(ASCP); Mary Ellen Mangum, M.P.H., M.T.(ASCP); Joy McNabb, B.A., M.T.(ASCP); Charlotte Merritt, A.B.; Sandra Murray, B.S., M.T.(ASCP); Nancy Parker,

B.S., M.T.(ASCP); Myra Propst, B.S., M.T.(ASCP); Patricia Thurrell, B.S., M.T.(ASCP), S.B.B.; Steve Valand, M.S.; Mary Vickers, B.S., M.T.(ASCP); Mary Wientjes, B.S., M.T.(ASCP), S.B.B.

In order to meet the medical and hospital needs in North Carolina and to provide adequate training in medical technology for the young men and women of the state, the School of Medicine of the University of North Carolina at Chapel Hill offers jointly with the College of Arts and Sciences of the University and the Department of Laboratories of the N.C. Memorial Hospital two programs in Medical Technology leading to a baccalaureate degree or a certificate.

The major in Medical Technology is designed to be completed in four calendar years, the last two years of which must be taken in The University of North Carolina at Chapel Hill in order to qualify for a degree from this institution.

The curriculum consists of a prescribed course for two years in the General College (or its equivalent elsewhere) and one year in the College of Arts and Sciences of the University. The fourth year consists of a twelve month course in the Department of Laboratories of the North Carolina Memorial Hospital. Upon successful completion the student is awarded the Bachelor of Science in Medical Technology and is eligible to take the national examination to become a certified Medical Technologist, (American Society of Clinical Pathologists), M.T. (ASCP). The completion of the first three years of the curriculum does not guarantee admission to the major in Medical Technology; the selection process is very competitive for the limited number of vacancies.

Students who have completed a Bachelor degree prior to admission are also accepted into the Medical Technology program provided they have the prerequisites to qualify for the national certification examination; upon completion they are awarded a certificate.

Tuition and other expenses for students in this program are similar to those for students in the General College based on a twelve month program. Students should consult the Undergraduate bulletin of the University for information.

The University of North Carolina at Greensboro and the North Carolina State University in Raleigh, branches of the Consolidated University of North Carolina, are affiliated in this program. The University of North Carolina at Chapel Hill will accept students who have completed three years at these institutions for a fourth year in hospital training. A B.S. degree in Medical Technology is awarded by the Greensboro and the Raleigh branches and a certificate for the year of hospital training by the Medical School of the University of North Carolina at Chapel Hill.

The schedule of academic work for this program follows:

BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

General College:

English 1, 2; Chemistry 11/11L, 21/21L, 41/41L, 42/42L, 61, 62; General Biology 21 or Zoology 11; Zoology 41, courses from Zoology 104, 105, 110, 120; six hours in mathematics; Mathematics 31 and other Computer Science 16 or Statistics 12; six hours of social science Divisional Electives; six hours of humanities-fine art Divisional Electives; nine hours of College Electives; required physical education.

Third Year:

Bacteriology 100; Zoology 117, 117L; courses from: Biochemistry 100, PALP 134, Physics 24, 25; see Zoology courses above; include nine hours of non-science electives.

Fourth Year:

Twelve month course in Medical Technology in the School of Medicine and the North Carolina Memorial Hospital:

MEDT 080	Summary of Lab Medicine	2 hours
MEDT 081	Hematology	9 hours
MEDT 082	Clinical Microscopy	3 hours
MEDT 083	Blood Bank	5 hours
MEDT 084	Coagulation	2 hours
MEDT 085	Clinical Biochemistry	12 hours
MEDT 086	Bacteriology	10 hours
MEDT 087	Parasitology	2 hours
MEDT 088	Mycobact/Mycology	2 hours
MEDT 089	Serology-Immunology	3 hours
		50 hours total

Upon successful completion, all students receive a certificate in Medical Technology. Those who are candidates for a degree from the University receive a Bachelor of Science in Medical Technology.

Requirements for national certification as a Medical Technologist are: a Bachelor of Science degree and:

Biology – 16 hours to include Bacteriology
Chemistry – 16 hours to include Organic
Mathematics – 3 hours

The Biology and Chemistry course work should be selected from those designed for majors. Survey courses are not acceptable. A course in Physics is strongly recommended.

Certification of the proficiency of a student by a college in any of the above required subjects may be accepted in lieu of these requirements; however, the student must still satisfy the three year requirement of 90 semester hours (135 quarter hours).

General Information

All inquiries or questions relative to admission or transfer for years 1, 2, or 3 should be sent to the Office of Admission, Country Club Road, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina. Information and application for the year of clinical education may be requested from: Program in Medical Technology, School of Medicine, Department of Medical Allied Health Professions, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Financial Aid

Limited financial aid is available from the University of North Carolina Office of Student Aid, 300 Vance Hall, Chapel Hill, North Carolina. Loan funds from the Educational Loan Program are available to students who have a financial need and have been residents of North Carolina for one year prior to college entrance. Applications should be made directly to: Educational Loan Program, P.O. Box 12200, Raleigh, North Carolina 27605.

Physical Therapy

Director: R. U. Mitchell, Ph.D., Professor and Director
Professors: M. L. Moore, Ed.D.; M. C. Singleton, Ph.D.
Associate Professors: M. W. Johnson, M.A.; C. M. Nelson, M.A.; M. M. Parker, M.A.
Assistant Professors: S. K. Campbell, Ph.D.; E. S. Flowers, B.S., D.Sc.; B. R. Howes, M.A.; B. F. LeVeau, Ph.D.; D. Lindsey, M.P.H.; C. A. Parr, M.S.; J. R. Reiner, M.S.; C. P. Schuch, M.A.; L. O. Stang, M.P.H.

Instructors: L. D. Woodruff, M.S.; K. J. Yundt, M.A.
Research Associates: J. F. Perry, M.A.; Irma Wilhelm, M.A.

Physical Therapy is one of the co-professional health services functioning as a part of the modern program of comprehensive patient care and rehabilitation. Concurrent with the increase in knowledge in the physical and social sciences and with the changing patterns of medical care, physical therapy is continuing to expand from the concept of only a direct service of evaluation and treatment of disease to encompass a focus on health promotion with anticipatory treatment and prevention of disease and injury. In addition to the direct service, physical therapy includes teaching and supervision of patients and families, consultation with other services and community agencies, and participation in programs functioning for out-of-hospital care. Responsibility is increasing for development and administration of physical therapy services including the teaching and supervision of supportive personnel. In order to help meet the personnel demands of these areas of increased responsibilities in North Carolina and in the South, the School of Medicine offers jointly with the General College of The University of North Carolina at Chapel Hill a four-year program leading to the baccalaureate degree in Physical Therapy. The course, open to both men and women, is accredited by the Council on Medical Education of the American Medical Association in cooperation with the American Physical Therapy Association. Graduates are eligible to apply for state and national registration and accreditation. Opportunities for advancement in practice, teaching, administration, and research are excellent.

The program is arranged to be completed in four calendar years. In the first two, the student must complete a prescribed curriculum in the General College or in another accredited institution. The last two years consisting of courses in the Division of Physical Therapy, Department of Medical Allied Health Professions of the School of Medicine, must be completed at the University of Chapel Hill. Enrollment in the last two years is limited and students will be accepted on a competitive basis. Enrollment in the first two years on the Chapel Hill campus does not automatically assure the student of a place in the junior class.

BACHELOR OF SCIENCE DEGREE IN PHYSICAL THERAPY

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
English 1	3	English 2	3
Chemistry 11, 111	4	Chemistry 21, 21L	4
*Mathematics 31, 31C or 1	3	*2nd Math. OR Math. Substitute	3
Elective 1	3	Social Science 1	3
Humanities and Fine Arts 1	3	Elective 2	3
Physical Education 1	1	Physical Education 2	1
Total Semester Hours	17	Total Semester Hours	17

Mathematics 15 satisfied at admission or after enrollment. If after enrollment, elective credit is granted.

*Math. 31, 31C OR 1 and a second Mathematics course or a Math substitute are required. The second Mathematics course or Mathematics substitute may be selected from: Mathematics 3, 2, 21, 32; Statistics 11, 12; Philosophy 21; Computer 16, 17, 18, 19.

Sophomore Year

Third Semester	*Credits*	*Fourth Semester*	*Credits*
Psychology 10 (General)	3	Elective 3 (Psych. recommended)	3
**Physics 24, 24L	4	Elective 4 (Physics 25 or other)	4
Zoology 11, 11L	4	Zoology 41, 41L	4
Social Science 2	3	Elective 5	3
Humanities & Fine Arts 2	3	Elective 6	3
Total Semester Hours	17	Total Semester Hours	17

UNC-CH Freshman Language:

Language 1 and 2 must be satisfied at admission or after enrollment. If after enrollment, Language 1 and 2 would count as two of the 20 courses. Students desiring to take Language 3 and 4 would receive credit for 2 Humanities.

Transfer students are not required to take a language for transfer unless their home institution requires it.

Not more than 4 courses may be selected from a single department or course area, including those in the Social Sciences and Humanities and Fine Arts.

PHYSICAL THERAPY

Junior Year

Neuroanatomy (Anatomy 93) (3)
Gross Anatomy (Anatomy 191) (8)
Physiology (Physiology 94) (5)
Clinical Education I (Physical Therapy 68) (2)
Patient Care and Evaluation (Physical Therapy 70) (6)
Human Growth and Development (Physical Therapy 80) (3)
Physical Therapy Procedures (Physical Therapy 83) (4)
Functional Anatomy (Physical Therapy 90) (3)
Physical Evaluation and Exercise (Physical Therapy 93) (4)
Communications for Physical Therapy (Physical Therapy 175a) (2)

Senior Year

Histology (Anatomy 92) (2)
Pathology (Pathology 90) (3)
Community Health (Physical Therapy 76) (3)
Clinical Education II (Physical Therapy 78) (2)
Medical Science (Physical Therapy 81) (3)
Psychiatry and Mental Health (Physical Therapy 82) (3)
Physical Therapy Procedures and Evaluation (Physical Therapy 84) (6)
Clinical Education III (Physical Therapy 88) (4)
Comprehensive Program Planning (Physical Therapy 95) (1)
Electrotherapy (Physical Therapy 172) (3)
Communications for Physical Therapy (Physical Therapy 175bc) (3)
Organization and Administration of a Physical Therapy Service (Physical Therapy 177) (3)

Summer Session (12 Weeks)

Clinical Education IV (Physical Therapy 98) (7)

General Information

A student wishing to transfer from another college or university should contact the Director, Division of Physical Therapy, early in his program in order to assure proper planning of courses.

**Physics 24 is offered only in the Fall of each year at UNC-CH.

Tuition and other expenses for students in this program are similar to those for students in the General College. Students should consult the Undergraduate Bulletin of the University for information. There will be minimum variations in costs for the third and fourth years of study. The fourth year, including the summer session, is twelve months in length. The last twelve weeks will be spent in clinical affiliations away from Chapel Hill and will necessitate travel expense.

All inquiries or questions should be directed to the Director, Division of Physical Therapy, Department of Medical Allied Health Professions, School of Medicine, The University of North Carolina at Chapel Hill, or to the Office of Admissions, Country Club Road, The University of North Carolina, Chapel Hill, North Carolina 27514.

Radiologic Science

Director: Janice C. Keene, M.S., R.T.
Curriculum Coordinator: Robert L. Thorpe, M.S., R.T.
Staff: Charles B. Burns, R.T.; Gilbert W. Turner, B.S., R.T.
Clinical Staff: Diane Blackwell, R.T.; Jan Biggs, R.T.; Arlene Caughron, R.T.T.; Anne Hough, R.T.; Louis Turrentine, R.T.; Louise Cox, R.T.

The School of Medicine in conjunction with the General College offers the baccalaureate degree in Radiologic Science designed to prepare men and women for professional practice and associated responsibilities in the health speciality of radiologic technology. The program is accredited by the American Medical Association's Council on Medical Education and graduates are eligible for registration by the American Registry of Radiologic Technologists.

Following completion of the freshman and sophomore year's work in the General College, students are admitted to the professional major in the Division of Radiologic Science, Department of Medical Allied Health Professions, School of Medicine. Students enrolled at other colleges or universities who are interested in transferring to the Chapel Hill campus following their sophomore year should contact the Office of Undergraduate Admissions and the Division of Radiologic Science early in their college career to assure proper planning and transferability of courses. Student selections for the junior class are made on a competitive basis with consideration given academic achievement, character, personal fitness, and demonstrated interest in radiologic technology as a professional career.

BACHELOR OF SCIENCE DEGREE IN RADIOLOGIC SCIENCE

Freshman

Fall Semester	*Credits*	*Spring Semester*	*Credits*
English 1	3	English 2	3
Mathematics 31	3	*Mathematics	3
Biochemistry 7 or Chem 11	4	Biochemistry 8 or Chem 21	4
Social Science	3	Social Science	3
Humanities and Fine Arts	3	Humanities and Fine Arts	3
Physical Education	1	Physical Education	1
Total Semester Hours	17	Total Semester Hours	17

*A second math course or math substitute is required and may be selected from the following: Math 3, 2, 21, 32; Statistics 11, 12; Philosophy 21; Computer Science 16, 17, 18, 19.

Sophomore Year

Fall Semester	*Credits*	*Spring Semester*	*Credits*
Physics 24	4	Physics 25	4
Zoology 11	4	Zoology 41	4
Psychology 10	3	Humanities and Fine Arts	3
Social Science	3	Elective	3
Elective	3	Elective	3
Total Semester Hours	17	Total Semester Hours	17

Junior Year

Introduction to Radiologic Science (RADI 42)
Radiography I (RADI 61)
Human Anatomy (ANAT 90)
Instrumentation and Imaging Methods (RADI 62)
Clinical Education I (RADI 73)
Radiography II (RADI 71)
Basic Physiology (PHYS 90)
Advanced Radiologic Imaging (RADI 72)
Clinical Education II (RADI 73)
Clinical Internship (RADI 74)

Senior Year

Advanced Radiography and Special Studies (RADI 81)
Issues and Trends in Radiologic Technology (RADI 86)
Clinical Education III and IV (RADI 83 and RADI 93)
Radiologic Physics (RADI 85)
Education or Management elective areas (5-6 courses)

General Information

Students are required to complete a twelve week internship during the summer preceding the senior year. Part of this period will be spent in clinical affiliations away from Chapel Hill.

Students should consult the Undergraduate Bulletin of the University for more information on General College course requirements and details concerning tuition and expenses. With the exception of summer sessions between junior and senior years which may require expenses for off-campus travel, educational costs are similar to those for students in the General College.

Inquiries should be addressed to the Director, Division of Radiologic Science, Department of Medical Allied Health Professions, School of Medicine, Chapel Hill or the Office of Undergraduate Admissions, Country Club Road, The University of North Carolina, Chapel Hill, North Carolina 27514.

Rehabilitation Counseling

Director: Robert Sakata, Ph.D.
Assistant Professor: D. Kenneth Mitchell, Ph.D.
Research Assistants: Susan Daniels, Emily Ballance

This is a four-semester Master's degree professional program in Rehabilitation Counseling. The program is interdisciplinary in nature and includes three academic semesters and one semester of full-time field internship. A total of 45 hours includes 21 hours in Rehabilitation Counseling, plus 15 hours in Rehabilitation Medicine, Psychology and related areas. A program is selected to meet each student's individual needs with theory and practice integrated throughout the four semester program.

While there are no specific requisites, background work in the social sciences, the behavioral sciences, and allied health areas is recommended.

The primary objective of this program is to educate rehabilitation counselors to become practicing professional workers in medical rehabilitation facilities in State-Federal programs and other related areas of employment.

Inquiries about this program should be addressed to: Division of Rehabilitation Counseling, Department of Medical Allied Health Professions, B115 Medical School, Wing B, The University of North Carolina at Chapel Hill, School of Medicine, Chapel Hill, North Carolina 27514.

PROGRAMS

Electron Microscopy

Program Director: Waykin Nopanitaya, Ph.D.

The Certification Program in Electron Microscopy is offered by the Department of Pathology. The program is 12 months in length and is open to registered histoligic technicians (HT[ASCP]), to individuals with a minimum of two years of successfully completed work at an accredited college (including 12 hours of biology), to individuals who hold the baccalaureate degree in one of the biological sciences, and to postdoctoral fellows in medical science.

The program will be arranged to be suitable for individuals based upon their experience and background and upon whether they will become: (a) Electron Microscopy Technician or (b) Professional Electron Microscopist.

The program begins in the fall semester of each year. The course of study includes comprehensive instruction in cytology and histology, cell ultrastructures, Transmission and Scanning Electron Microscopy (TEM & SEM), photography, histochemistry in electron microscopy, and interpretation of pathological data in electron microscopy.

Inquiries should be addressed to Director, Electron Microscopy Training Program, Department of Pathology, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Histopathology

Program Director: Waykin Nopanitaya, Ph.D.
Education Coordinator: Mr. Joseph Brugnolotti, M.A.T., M.Ed., E.M.

This twelve-month training program is offered by the Department of Pathology and is approved by the American Society of Clinical Pathologists. Students who complete the program are eligible to take the national registry examination and are designated as HT (ASCP). A registered specialist in this demanding field is chiefly devoted to working closely with the pathologist in the histopathology laboratory.

A high school graduation with college preparatory background is prerequisite for the program.

The course of study includes all histopathological procedures routinely requested by pathologists, comprehensive instruction in general histology, and other special techniques in preparation of specimens for pathological diagnosis.

Inquiries should be addressed to Histopathology Training Program, Department of Pathology, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Nuclear Medicine Technology

Program Director: R. E. Johnston, Ph.D. (Acting Director)
Medical Director: Edward V. Staab, M.D.

A twelve-month program in Nuclear Medicine Technology is conducted by the faculty and staff of the Division of Nuclear Medicine, North Carolina Memorial Hospital and the School of Medicine of the University of North Carolina. Graduates of the program are eligible for certification by the American Registry of Radiologic Technologists in Nuclear Medicine.

Classes begin July 1 of each year and application must be submitted by the preceding March 15. Applicants eligible for admission consideration must be certified, or eligible for certification, as a radiologic technologist (ARRT) or medical technologist (ASCP).

Application forms and other materials may be obtained from the Director, Division of Radiologic Science, Department of Medical Allied Health Professions, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Occupational Therapy

Program Director: Mrs. Mary Lynn Taylor, O.T.R.

This is a senior and graduate level training program for students from AOTA and AMA accredited curricula for clinical field work experience in physical dysfunction and psychiatry. The program accommodates eighteen students per year on three month rotations. The physical dysfunction department is geographically separate from the psychiatric unit, thus the participating students are scheduled concurrently for the three month periods. Clinical field work experience in both of these areas are necessary in order to be eligible for the national certification examination and to meet state licensure requirements. This is one of numerous clinical centers in the country and the programs adhere to the educational essentials as outlined by the Council on Education of the American Occupational Therapy Association. Students are scheduled through clinical coordinators at their universities and make application when pertinent academic information is available.

The goal of the program is to equip the students with the clinical skills and functional experience necessary to treat physically and psychiatrically disabled children and adults within the framework of established occupational therapy theory and principles. All students are evaluated with a nationally uniform rating instrument upon satisfying the requirements of the center.

There is currently being planned a graduate level occupational therapy curriculum. It will be a basic professional degree at the masters level accommodating graduates from science related baccalaureate programs. The curriculum will be in the Department of Medical Allied Health Professions in the School of Medicine, and lead to a Masters of Science degree. If approved, the program will be operational no earlier than the fall semester 1977.

Any inquiries for information should be directed to: M. L. Taylor, OTR, North Carolina Memorial Hospital, Box 76, Chapel Hill, North Carolina 27514.

Radiation Therapy Technology

Program Director: N. Arlene Caughron, R.T.T.
Medical Director: Gustavo Montana, M.D.
Staff: William Saylor, M.S.; R. E. Johnston, Ph.D.; Cathy Bost, R.T.T.; Gail Mariette, R.T.T.; Lana Spears, R.T.T.

The program in Radiation Therapy Technology is conducted by the faculty and staff of the University of North Carolina School of Medicine and North Carolina Memorial Hospital. The program is approved by the American Medical Association's Council on Medical Education in collaboration with the American College of Radiology and the American Society of Radiologic Technology.

This one-year program beginning in August, consist of both extensive didatic (350 hours) and clinical education on a wide spectrum of therapy equipment: 25 million volt Betatron, 4 MV Linear Accelerator, Theratron-80 Cobalt 60 Unit, Ortho and superficial units, ample supply of Brachytherapy sources, therapy simulator, and an expanding computer dosimetry program.

Applications will be considered from individuals who are certified as Radiologic Technologists by the American Registry of Radiologic Technologists and from registered nurses with an adequate background in physics. Student stipends are available.

Application forms and other materials may be obtained from the Program Director, Division of Radiation Therapy, Department of Radiology, The University of North Carolina School of Medicine, Chapel Hill, North Carolina 27514.

Recreation Therapy

Program Directors: Mr. Glen VanAndel, M.S.; Ms. Elizabeth Shute, M.S.

This program is designed to provide the undergraduate and graduate student with practical experience in the field of Recreation Therapy. A variety of placement settings such as rehabilitation, general medicine, pediatrics and psychiatry expose the student to many treatment techniques developed in progressive sequences and directed to the student's interest and level of ability.

The work will include planning, leading and evaluating recreational activities for both in-patients and out-patients. Adapting recreation activities to accommodate specific limitations or disabilities, through individual and group recreation activities, pre-surgery and post-surgery play, developmental play assessment procedures and leisure counseling are some of the competencies which the student will be expected to master during the course of the training program.

In order to be accepted, students must be enrolled at a recognized college or university whose curriculum meets established national standards in the area of Therapeutic Recreation or Early Childhood Development.

For further information please write: Director of Recreation Therapy, North Carolina Memorial Hospital, Chapel Hill, North Carolina 27514.

Surgeon's Assistant

Program Director: William P. Biggers, M.D.

The Surgeon's Assistant Program is a 24 month on-the-job training course offered by The Department of Surgery and The North Carolina Memorial Hospital.

The program has been approved by the Veterans Administration and the North Carolina Board of Medical Examiners.

Students who complete the program are eligible for membership to the American Association of Physicians Assistants. All graduates must be registered with the North Carolina Board of Medical Examiners to work under the supervision of a surgeon.

The program is designed to help meet the growing health care needs of North Carolina by providing a highly skilled technical assistant for the surgeon.

Prerequisites are two years of college and two years of patient care experience or an equivalent combination of both.

Training includes instruction and indepth training in surgical specialties including general surgery, orthopedic, plastic, otolaryngology, urology, vascular, cardiothoracic

and the emergency room. Didactic lectures cover introduction to blood banking, pharmacology, microbiology, anatomy, medical terminology, wound care and asepsis, and maintenance of medical electronic equipment.

All students receive a small training stipend. The North Carolina Memorial Hospital is currently funding six permanent positions for our graduates.

New students will be accepted in September of each year, contingent upon the availability of funds. Registration is charged.

Inquiries should be directed to: Surgeon's Assistant Program, Department of Surgery, School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

DEPARTMENT OF MEDICINE

Professors: R. L. Ney *(Chairman)*, T. B. Barnett[1], M. C. Battigelli (Epidemiology, Family Medicine), W. R. Berryhill (Dean Emeritus), W. B. Blythe, R. A. Briggaman (Dermatology), P. A. Bromberg, J. A. Bryan, II (Family Medicine), E. Craige, W. J. Cromartie (Bacteriology), F. L. Eldridge (Physiology), T. W. Farmer, A. L. Finn, J. J. Fischer (Bacteriology), W. L. Fleming (Family Medicine), C. C. Fordham, III (Dean), H. J. Gitelman, C. W. Gottschalk (Physiology), J. C. Herion, H. S. Kingdon (Biochemistry), W. E. Lassiter, J. S. Pagano (Bacteriology), J. G. Palmer, J. C. Parker (Vice-Chairman), H. R. Roberts (Pathology), E. L. Rolett[2], O. L. Sapp, III, J. T. Sessions, Jr., J. M. Sorrow, Jr., J. K. Spitznagel (Bacteriology), R. I. Walker, E. E. Werk, Jr., C. E. Wheeler, Jr. (Dermatology), J. W. Woods, D. T. Young, W. J. Yount (Bacteriology)

Associate Professors: E. M. Bozymski, T. K. Gray (Pharmacology), W. D. Heizer, W. B. Herring, W. Hollander, Jr., C. B. Lyle, Jr., E. S. Mayer (Family Medicine, Epidemiology), C. E. Morris, J. Noble (Family Medicine), C. T. Nuzum, D. A. Ontjes (Pharmacology), L. A. O'Tuama (Pediatrics, Pharmacology), C. G. Pickard, Jr. (Family Medicine), R. L. Pimmel (Surgery), D. W. Powell, M. P. Remler (Anatomy), J. Savory (Pathology, Biochemistry), E. H. Sides, III, P. F. Sparling (Bacteriology), A. L. Steiner (Pharmacology), M. Swift, P. C. Ungaro, W. B. Wood

Assistant Professors: G. W. Blake, P. M. Blatt (Pathology), W. F. Bobzien, III, R. E. Colindres, R. E. Cross (Pathology, Biochemistry), W. F. Finn, J. R. Foster, T. R. Griggs (Pathology), J. D. Gupta, N. M. Hadler (Bacteriology), C. D. Hall, B. P. Hickey, A. J. Hoole (Family Medicine), E.-S. Huang, L. M. Killingsworth (Pathology), J. S. Kizer (Pharmacology), H. R. Lesesne, P. M. Levitin, W. D. Mattern, D. A. McKay (Family Medicine), L. P. McLaurin, R. C. Orlando, E. P. Orringer, S. M. Putnam (Family Medicine, Epidemiology), D. D. Raft (Psychiatry), R. A. Reid, L. Reuss, J. F. Rogers (Pharmacology), F. A. Sarubbi, Jr., P. D. Utsinger, E. H. Wagner (Family Medicine, Epidemiology), S. G. Wagner, S. L. Warren (Family Medicine)

Instructors: J. C. Allen (Pediatrics), L. W. Boyles, B. R. Brodie, S. S. Gustke, J. T. Gwynne, V. B. Hunt, H. M. Reisner (Bacteriology), V. H. Wynia

Clinical Professors: J. R. Chambliss, D. S. Citron, L. Cosin, N. H. Garrett, Jr., H. W. Gillen, R. A. Hare, E. M. Hedgpeth, L. W. Kelly, Jr., S. F. LeBauer, J. A. Lusk, III, M. M. McCall, III, L. J. Rabold, E. A. Rasberry, Jr., C. L. Royster, O. N. Smith, J. B. Stevens, I. M. Taylor, H. Uhl, W. H. Wilson

Clinical Professors, Emeritus: V. S. Caviness, P. A. Shelburne

Clinical Associate Professors: J. F. Alexander, W. E. Bellamy, Jr., J. H. Black, G. W. Blair, Jr., M. D. Bonner, W. L. Brooks, J. C. Bruce, J. R. Bumgarner, B. R. Cates, Jr., A. T. Coffee, Jr., A. D. Cooper, T. E. Cooper, Jr., J. G. Craddock, J. C. Craven, J. M. Douglas, C. D. Farmer, R. L. Fenning, W. H. Gentry, H. L. Godwin, H. A. Godwin, Jr., G. R. Grant, Jr., C. M. Grigg, J. H. Hardison, J. R. Harper,

---

[1] Leave of absence, August 1, 1975 through July 31, 1976.
[2] Leave of absence, July 1, 1975 through June 30, 1976.

C. W. Harris, F. Hiestand, Jr., J. B. Hobson, G. V. Irons, Jr., J. K. Jones, S. B. Joyner, W. S. Joyner, L. T. Kermon, O. C. Kimbrell, Jr., E. E. Landis, Jr., G. M. Leiby, W. A. Leonard, Jr., H. Z. Lund, J. C. MacKay, E. T. Marshburn, Jr., T. N. Massey, Jr., J. L. McCain, J. H. McCutchan, T. H. McMillan, Jr., C. R. Merwarth, T. L. Murphy, P. R. O'Bar, J. A. Paar, E. B. Page, Jr., F. G. Patterson, R. B. Payne, T. S. Perrin, Jr., W. G. Porter, N. G. Pritchett, W. I. Procter, C. R. Ruppenthal, Jr., P. F. Shelburne, W. F. Shuford, R. S. Spain, A. Stewart, Jr., W. C. Sugg, Jr., A. J. Tannenbaum, J. A. Taylor, J. Tidler, G. R. Tucker, Jr., B. Vatz, H. S. Wainer, S. E. Warshauer, K. D. Weeks, R. M. Wheeler, C. B. Wilkinson, R. W. Willett, E. S. Williams, G. T. Wolff, W. G. Wysor

Clinical Associate Professor, Emeritus: W. R. Stanford

Clinical Assistant Professors: J. U. Adelman, J. W. Allgood, J. W. Baker, W. T. Bennett, L. S. Betts, R. H. Bilbro, P. W. Boyles, J. T. Brooks, D. W. Brown, E. L. Bryan, R. M. Buie, Jr., W. R. Bullock, T. F. Camp, J. T. Chandler, J. D. Charlton, W. F. Credle, Jr., D. L. Crocker, O. S. Cunanan, L. M. Cutchan, J. H. Davidson, J. L. DeWalt, J. D. Dorsett, Jr., W. M. Dunlap, J. W. Eakins, H. A. Eaton, Jr., C. A. Eure, B. B. Ferdon, R. E. Gaddy, Jr., B. W. Gilmore, W. M. Ginn, M. B. Golby, A. F. Goley, D. Gottovi, D. G. Hall, N. B. Harbold, C. M. Harris, M. A. Hatcher, Jr., H. H. Hodges, J. W. Howland, S. J. Jacobs, W. H. Jordan, R. A. Kelly, R. L. Kendrick, G. E. Koury, T. R. Kunstling, E. J. LeBauer, E. S. LeBauer, D. M. MacQueen, E. S. Marks, C. H. McKay, H. W. Miller, P. R. Miller, D. K. Millward, J. A. Moore, J. F. Munroe, W. M. S. Nesbit, W. P. Nixon, Jr., F. V. Ona, J. R. O'Rourke, Jr., W. C. Pierson, Jr., N. J. Robinson, R. J. Rosen, J. Ruskin, J. W. Sawyer, R. G. Senter, R. E. Sevier, J. C. Shaver, K. T. Shultz, D. W. Sillmon, W. V. Singletary, T. H. Smelzer, P. P. Smith, R. E. Smith, J. W. Snyder, H. W. Sparrow, J. F. Spragins, R. B. Steelman, E. W. Stevens, J. W. Stiefel, J. R. Tamisiea, L. S. Thorp, M. F. Townsend, Jr., H. D. Verner, N. K. Weng, J. W. Whatley, Jr., L. S. Wilkins, J. K. Wilson, M. S. Wingfield, J. A. Wynnemer, W. B. Young

Clinical Instructors: R. J. Andelman, W. J. Banfield, J. L. Clausen, G. L. Crane, J. A. Diaz-Buxo, F. B. Dove, Jr., C. R. Fernandez, G. K. Gupta, E. D. Haak, C. C. Haworth, D. L. Hill, N. J. Kramer, A. R. Lewis, J. J. Lund, R. D. Mirel, G. T.,A. Morris, R. S. Munger, J. W. Plonk, C. D. Rhodes, Jr., S. E. Scott, R. H. Svenson, A. V. Wall, J. B. Weissberg, P. F. Williams, J. C. Woodard, S. L. Young

Fellows: W. B. Applegate, D. I. Becker, E. Bello, J. D. Brizuela, L. B. Bustad, R. R. Chamusco, R. L. Chevalier, K.-S. Chung, P. E. Compeau, C. A. de los Santos, J. B. del Moral, J. F. Donohue, D. J. Dove, H. S. Earp, III, B. I. Eisenstein, D. A. Gabriel, S. L. Green, J. E. Hammond, R. Harris, J. W. Holt, III, C. J. Ingram, P. J. Klemmer, Y. Koide, T. J. Lee, S. M. Lemon, P. S. Lesser, J. L. Leviner, J. T. Mann, III, M. Michael, III, J. E. Morgan, C. V. Morris, J. P. Moyer, E. Pastoriza, G. A. Plishker, B. R. Reeves, Jr., J. D. Rose, H. I. Saba[3], R. J. Scott, R. D. Serano, H. M. Smith, R. L. Smith, D. B. Sperry, J. J. Stuart, E. J. Tapper, A. Todorav[4], K. S. Turner, E. M. Wallack, E. J. Walton, Jr., D. Ward, M. Weiner, J. Weissberg, G. G. White

Research Associates: G. D. Biswas, L. F. Guymon, D. D. Mahaffee, C. M. Noyes, W.-S. Yeh

Research Assistants: J. T. Adkinson, S. P. Powell, F. L. Siegel

Third Year

Third year medicine consists of a clerkship on the wards of the medical service (2 months at North Carolina Memorial Hospital and one month at an affiliated hospital). Emphasis is on the acquisition of knowledge of medicine through study of patients assigned to the student. Students participate actively in daily work rounds

[3] Resigned July 31, 1975.
[4] Resigned September 30, 1975.

and attending rounds and in the actual management of patients on the service. A variety of other conferences and lectures is highlighted by the Tuesday Medical Mortality Conference and Thursday Grand Rounds.

Electives

405. CLINICAL CARDIOLOGY (6). Prerequisite, basic science and clinical ward experience. Emphasis is placed on (1) physical diagnosis of heart disease, (2) electrocardiography, (3) management of cardiac problems seen in consultation on in-patients, (4) hypertension problems in diagnosis and management, (5) diagnostic and management problems in new and old cardiac patients in Out-Patient Department, and (6) use and interpretation of graphic methods. *Four students each elective period.* Craige, Harper, McLaurin, Griggs, Foster, Brodie.

406. CLINICAL CARDIOVASCULAR PHYSIOLOGY (6). Prerequisite, completion of all clinical clerkships. This elective is concerned with applied physiology of the cardiovascular system. Special emphasis is placed on correlation of physical signs with hemodynamic and angiographic findings at cardiac catheterization. The student participates as a contributing member of the cardiac catheterization team. He has the opportunity to work-up, examine and present patients pre-catheterization, to interpret and relate the data obtained at catheterization to the patient's symptoms and signs, to enter into the decision making process regarding therapy and to folow many of the patients through cardiac surgery. Considerable fee time is provided for in-depth reading in topics of the student's choosing. *One student each elective period.* McLaurin, Brodie, and Cardiac Fellows.

407. GASTROENTEROLOGY (6). Prerequisite, third-year clerkship in medicine. The clinical aspects of gastroenterology, hepatology, and nutrition are emphasized in this elective. Special attention is paid to the biochemical and physiologic bases for diagnosis and treatment. Students observe and, where appropriate, perform specialized procedures such as endoscopy, secretory studies (gastric and pancreatic), biopsy and radiography. Experience is gained in the interpretation of x-rays and histologic slides of both bowel and liver. The student's knowledge and visual experience may be expanded through a learning center which includes a teaching microscopy plus equipment for viewing collections of histopathology, tape-slide programs and microfilms. The student participates daily in consultation rounds and works one-half day each week in the GI Out-Patient Department. *Five students each elective period.* Sessions, Sapp, Bozymski, Heizer, Powell, Lesesne, Orlando, Nuzum.

408. HEMATOLOGY (6). Prerequisite, senior medical students (juniors by arrangement). Designed to give student a broad coverage of as many aspects of clinical hematology as possible. Students will have ample opportunity to learn the techniques of bone marrow aspirations and biopsy and other laboratory tests of value in the diagnosis of hematological diseases. Students will be given an opportunity to explore particular interests in coagulation, blood banking techniques, or other diagnostic laboratory methods in Hematology. *Three students each elective period.* Senior staff.

409. MEDICAL EMERGENCIES (6). Prerequisite, three years of medical school. Under the supervision of the medical house staff, exposure to and involvement in the various problems presenting as emergencies will be arranged. The diagnosis, pharmacologic, and physical management of such problems as cardiac arrhythmias, "medical" shock, acute congestive heart failure, diabetic acidosis, the emergency care of acute electrolyte imbalance, respiratory insufficiency, and acute infectious disease problems both in out-patients and in-patients will be considered as these patients present themselves in the settings mentioned. *Three students each elective period.* Bryan, Bobzien.

410. AMBULATORY MEDICINE (6). Prerequisite, three years of medical school. Involvement in screening and emergency clinics, specialty clinics and

continuity clinics as well as an exposure to dermatology are arranged according to the interests of the student. *Five students each elective period.* Bryan, Bobzien.

411. DIAGNOSIS AND MANAGEMENT OF INFECTIOUS DISEASES (6). Prerequisite, three years of medical school. The primary objective of the program is to provide an educational environment in which students may learn the clinical and laboratory basis of antibiotic therapy. Opportunity to learn the principles of clinical microbiology that may be applied in the physician's office will be made available. The functions of an infectious disease consultant and hospital epidemiologist will be demonstrated. Students will work as active members of the infectious disease group providing consultative services in the North Carolina Memorial Hospital. The opportunity to study in depth selected patients with infectious diseases in order to develop the skills required for effective diagnosis and treatment of infections will be made available. *Three students each elective period.* Pagano, Sparling, Cromartie, Fischer, Spitznagel, Sarubbi, Sides, Blake, and Fellows.

412. ENDOCRINOLOGY (Pediatrics 412) (6). Prerequisite, completion of all clinical clerkships. Extensive clinical experience is obtained with patients with documented endocrine disorders in the Medical Endocrine and Diabetes Clinics and in the Pediatric Endocrine Clinic. Students interested in experience in medical genetics may arrange to work in the combined Medical-Pediatric Genetics Clinic with permission of Dr. Swift or Dr. Kirkman. New patients referred for evaluation are seen in the clinics and discussed with members of the Medical or Pediatric staff. In-patients are seen on consulting rounds in the main hospital and in the Clinical Research Unit. *Three students each elective period.* Ney, Ontjes, Gray, Van Wyk, French, Underwood, Steiner.

413. NEPHROLOGY (Pediatrics 413) (6). Prerequisite, three years of medical school. Designed to provide an in-patient and an out-patient experience in the broad area of Nephrology. In addition, it will include a program of supervised reading and tutorial sessions designed to meet the particular interests and needs of the student involved after consultation with him. He may have the opportunity to learn something about the special techniques of Nephrology including: renal biopsy (along with an understanding of the indications and interpretation), the use of the artificial kidney, peritoneal dialysis, and some of the common lab procedures. He will work in the Outpatient Department where he will see patients with nephrologic problems once a week and will "work-up" approximately three "in-patients" a week. *Four students each elective period.* Blythe, Colindres, A. Finn, Gitelman, Lassiter, Mattern, W. Finn.

414. PULMONARY MEDICINE (6). Prerequisites, three years of medical school. Activities will consist of: (a) review of respiratory physiology, (b) clinical and laboratory diagnosis of pulmonary diseases including such special techniques as pleural biopsy, (c) applied respiratory physiology and evaluation of lung function, (d) general and special therapy in pulmonary medicine including acute and chronic bacterial infections, tuberculosis and the mycoses. Emphasis will be given to comprehensive care of patients with disabling lung diseases and, whenever possible, this will include experience in acute respiratory care and instruction in the use of respiratory devices, respirators, etc. *Two students each elective period.* Barnett, Battigelli, Eldridge, Bromberg, Pimmel.

415. PROBLEMS IN IMMUNOLOGY AND RHEUMATOLOGY (Bacteriology 115) (6). Prerequisite, clinical diagnosis and physical diagnosis. The course includes clinical consultation in rheumatic diseases at both the outpatient and inpatient level. Participation includes 1½ days of Arthritis Clinic, ½ day of Allergy Clinic, and optional additional full day of Arthritis Clinic at one of our participating AHEC hospitals, and workup of patient consultations at North Carolina Memorial Hospital. In addition, a student has the opportunity to pursue laboratory work both related to immunochemistry and cellular immunology. This would include lab assessment of patients with immunoglobulin scrasures, connective tissue or "immume complex"

diseases, primary immunodeficiency syndromes and other individual research projects that may be elected according to student interests. According to the option of the student, the entire course may be a laboratory experience including the instruction and preparation of antisera to isolated myeloma proteins, characterization of such antisera using precipitin techniques (immunoelectrophoresis, Ouchterlony, double diffusion, hemogglutination and genetic typing systems, single radial diffusion, immunofluorescence, radioimmunoassay surface immunoglobulin and rosette techniques, or work with a specific animal model of erosive arthritis in the rat). *Three students each elective period.* Yount, Hadler, Utsinger.

417. INTRODUCTION TO RESEARCH PROBLEMS IN CLINICAL PHARMACOLOGY (6). Prerequisite, two years of medical school. This course will provide the student with an understanding and background in the principles of clinical or laboratory research in problems relating to Clinical Pharmacology. *Laboratory research*—The student may participate in one of the following areas of investigation: (1) The biochemistry of oral hypolipidemic agents (enzymology and lipid biochemistry); (2) The cytotoxic determinants and cellular disposition of anticancer agents (membrane transport phenomena, enzymology); (3) Mechanism of action and control of thyrocalcitonin (intestinal transport phenomena); (4) The pathogenesis of Byssinosis (histamine releasing phenomena). *Clinical research*—students may choose one of the two following programs: (1) The evaluation of drug efficacy-design of clinical trials, evaluation of data, experimentatal pitfalls. Current programs include drug therapy in chronic active hepatitis, disorders associated with demineralization of bone and others. (2) Adverse reactions to drugs in hospital practice—students may participate in an ongoing evaluation of therapeutic practice and drug reactions at this hospital. *Four students each elective period.* Battigelli, Gray, and others.

418. PROBLEMS IN THERAPEUTICS (6). Prerequisite, completion of all clinical clerkships. This elective will offer an opportunity to explore the medical literature in search of answers to vexing and commonly asked questions in the clinical use of drugs. It will consist of four to five meetings per week lasting approximately two hours each. At each meeting two students will be asked to present in an organized fashion their thoughts on one of the questions below. Presentations are expected to be a thoughtful analysis including skeptical and critical comments on the quality of the work already done in that area. Sample questions: (1) Which diuretic is most effective in the treatment of hypertension? (2) What is the relative efficacy of the various mild analgesics available to physicians? (3) What is the place of chloramphenicol in antibotic therapy today? (4) What factors should govern the choice of one sedative hypnotic over another? *Four students each elective period.* Rogers, Gray, Battigelli, Kizer.

419. AMBULATORY MEDICINE IN A COMMUNITY HEALTH CENTER (FMME 419) (12). Prerequisite, clerkship in medicine. The student will function as a Family Nurse Practitioner in a Community Health Center supervised by members of the Divisions of Community Medicine in the Departments of Medicine and Family Medicine. He will see primarily walk-in patients, manage their problems using the standing orders for FNP's, make follow-up visits in the health center or home accompanied by Community Health Workers or a Family Nurse Practitioner, and will meet daily with a health center team to discuss problems encountered by CHW's or FNP's. The physician in each health center will review all student notes and supervise his activities. One day per week the student will stay in Chapel Hill to pursue an elective in a sub-specialty or a special project relating to his health center work. All candidates must apply to Glenn Pickard (966-2461) to be approved for this elective and must contact him one week prior to the beginning of the elective to arrange a schedule of activities and to learn the time and place to report. *Three students each elective period.* Putnam, Pickard, Hoole, Wagner, McKay, Greenberg.

420. SEMINAR: ELECTROCARDIOGRAPHY (0). Prerequisite, willingness to study the subject as outlined. An introductory course in theoretical and practical

aspects of electrocardiography. 8 sessions. The vectorial approach is stressed. A syllabus of representative tracings is provided to each person enrolled, and homework (analysis of ECG's) is required. This course provides a basis on which one can build in gaining proficiency in electrocardiography as required for internship, teaching of technicians, etc. *35 students each elective period.* Craige, Harper, Foster.

422. SEMINAR: ANALYSIS OF MEDICAL THERAPEUTICS (0). Prerequisite, three years of medical school. This course will analyze diagnostic and therapeutic practices in contemporary medicine through a critical evaluation of medical literature pertaining to clinical investigation. Selected articles will be distributed to students before each seminar and will be discussed by the group. There will be intensive analysis of one or two articles at each seminar rather than a cursory survey of larger areas of the medical literature. Disorders associated with a long life expectancy will be emphasized (mild diabetes mellitus, mild hypertension, chronic lung disease, benign arrhythmias) for which longterm drug therapy may represent more of a threat to longevity than the disorder itself. Therapeutic practices in other controversial areas will be considered such as the collagen diseases, chronic renal disorders, coronary artery disease, inflammatory bowel diseases. Moral and ethical problems relating to therapeutics will be considered as well as the psychological factors which often influence the therapeutic approach and its success. Topics will be chosen at the discretion of students and faculty. *12 students each elective period.* Gray, Battigelli, and other selected members of the medical school faculty.

423. SEMINAR: CLINICAL DISORDERS OF HYDRATION AND ACID BASE EQUILIBRIUM (0). Prerequisite, three years of medical school. Eight two-hour weekly lectures on the clinical disorders of hydration and acid-base equilibrium. Blythe, Mattern.

424. SEMINAR: ACUTE EMERGENCIES IN PULMONARY MEDICINE (0). Prerequisite, two years medical curriculum. Students electing this seminar course will be expected to select a topic from the following list (or a similar topic of his own choosing). With the help of a faculty preceptor a one hour seminar will be prepared and presented to the group consisting of faculty and other participating students. Suggested topics: (1) Status asthmations; (2) Respiratory failure; (3) Pulmonary emboli; (4) Acute lower respiratory infections; (5) Asphyxia–drowning. *Twenty students each elective period.* Barnett, Eldridge, Bromberg, Battigelli, Pimmel.

425. SEMINAR: MECHANISMS IN MAJOR PULMONARY DISEASES (0). Prerequisite, two years medical curriculum. Students will be expected to select a topic from the following list (or a similar topic of his own choosing). With the help of a faculty preceptor a one hour seminar will be prepared and presented to the group consisting of faculty and other participating students. Suggested topics: (1) Structure and function in the chronic obstructive airway diseases; (2) Mechanisms of lung injury; (3) Abnormalities of ventilatory regulation in the pathogenesis of respiratory failure; (4) Mechanisms in the pathogenesis of pulmonary hypertension in chronic pulmonary diseases; (5) Immune mechanisms in pulmonary diseases. *Twenty students each elective period.* Barnett, Battigelli, Eldridge, Bromberg, Pimmel.

430. ACTING INTERNSHIP, MOSES CONE MEMORIAL HOSPITAL (6). Prerequisite, completion of third year clerkship in medicine. Students electing this rotation at Moses Cone Hospital will be assigned the full duties and responsibilities of an intern. They will be expected to do the initial patient work-ups, attend rounds and conferences, write daily progress notes and all orders. They will participate in all decisions regarding management of their patients. They are on-call every third night. *Two students each elective period.* Herring, Reid, Levitin and staff.

432. ACTING INTERNSHIP, CHARLOTTE MEMORIAL HOSPITAL (6). Prerequisite, three years of medical school. The student serves as an active intern on one of the three busy "staff" medical services under the supervision of a first year medical resident. Ward rounds are made daily with the attending physician and

consultations are available through the senior medical residents and their sub-specialist attendings. Regular scheduled conferences are held in all the medical sub-specialities and are attended by all members of the medical house staff. Grand Rounds are held once weekly and EKG conferences three times weekly. Medical Clinic under the direction of Dr. Carl Lyle and the chief medical resident is held three mornings weekly providing a means for follow-up of discharged patients. Room will be furnished by the Charlotte Memorial Hospital. *Three students each elective period.* Faculty at Charlotte Memorial Hospital and UNC.

433. ACTING INTERNSHIP, WAKE MEMORIAL HOSPITAL (6). Prerequisite, completion of all clinical clerkships. Students will serve as acting interns on the medical service at Wake Memorial Hospital. They will work with housestaff and full-time and part-time attending staff. The students will serve as primary physicians to patients with both acute and chronic medical problems. The course offers an opportunity for students to see how clinical medicine is practiced in a community hospital. The student will work closely with both practicing physicians and full-time faculty in the care of these patients. All conferences, seminars, and rounds will be open to the students. Transportation and on-call room will be provided. *Three students each elective period.* Faculty at Wake Memorial Hospital and UNC.

435. ACTING INTERNSHIP, NEW HANOVER MEMORIAL HOSPITAL (6). Prerequisite, three years of medical school. Students will serve as acting interns on the medical service at New Hanover Memorial Hospital. They will be the primary physicians to patients with both acute and chronic medical problems. The course offers an opportunity for students to learn and experience practical clinical medicine. The students will work closely with house staff and both practicing physicians and full-time faculty in the care of these patients. All conferences, seminars, and rounds will be open to the students. Room and board will be furnished. *Four students each elective period.* Dr. Werk, Faculty and Staff at New Hanover Memorial Hospital and UNC.

436. ACTING INTERNSHIP IN MEDICINE (6). Prerequisite, three years of medical school. An Acting Internship in Internal Medicine will be offered throughout the 12-month year in Internal Medicine. This Acting Internship will be on the Clinical Research unit at the North Carolina Memorial Hospital. *One student each elective period.* Staff of the Department of Medicine.

437. ACTING INTERNSHIP, COMMUNITY INTERNAL MEDICINE, TARBORO CLINIC, AND EDGECOMBE GENERAL HOSPITAL (6). Prerequisite, three years of medical school. The Acting Internship is designed to acquaint the student with the scope of services for which a general internist is responsible. The student will work in the Tarboro Clinic group practice facility during the day and will work in the Emergency Room at Edgecombe General Hospital on alternate nights and weekends with the physicians from the Tarboro group. He will be responsible for the initial history and physical on those patients whom he encounters which require admission and will be responsible for their follow-up with the admitting physician during the hospitalization. Daily teaching rounds on the in-patient service will be conducted by members of Tarboro Clinic staff. Opportunities will also be made available to the student to spend brief periods of time in other health facilities in the community such as the health department, social service office, solo practitioners' offices, and local mental health facility. The student will also participate in weekly teaching conferences of the clinic and hospital. *Two students each elective period.* Cutchin, Hemingway, Whaley, Brooks.

438. ACTING INTERNSHIP, NASH GENERAL HOSPITAL (6). Prerequisite, clinical clerkship in Medicine. Students will serve as acting interns in the Nash General Hospital under the supervision of clinical faculty who are in the private practice of Internal Medicine in Rocky Mount. The student will be assigned selected patients who are hospitalized under the care of the responsible clinical faculty member and other hospitalized patients who are of particular teaching value. For

these patients, the student will be given appropriate responsibility in terms of assuming responsibility for ordering diagnostic evaluation, writing orders, etc. The opportunity will also be made available for the student to spend time in the physician's private office and to participate in the Emergency Services of the hospital. *Two students each elective period.* Clinical faculty at Nash General.

439. EMERGENCY MEDICINE, CHARLOTTE (6). Prerequisite, completion of Medicine, Pediatrics, and Surgery clerkships. The bulk of this rotation will be spent in the Emergency Room with primary evaluation of patients, formulation of treatment plans, and carrying out these plans being the primary part of the program. Externs will perform all routine ER procedures under supervision that are within their capabilities. *Two students each elective period.* McCall and Baker.

443. MEDICAL GENETICS (Pediatrics 443) (6). Prerequisite, third year clerkships, or by permission of Dr. Swift. The student will participate in genetic consultations on the adult and children's services and in the evaluation of patients seen in the Genetic Counseling Clinic. There are frequent consultations on patients presenting in the general Pediatric Clinic or Emergency Room, and patients are seen for antenatal diagnosis or genetic diagnosis or counseling. The student may choose to make field trips to study a family with a genetic disorder, to learn cytogenetic techniques, to read selected topics in medical genetics under supervision, or, by special permission, to undertake a research project. *Two students each elective period.* Buchanan, Kirkman, Swift and staff.

444. CLINICAL EXPERIENCE IN COMMUNITY MEDICAL PRACTICE (6). Prerequisite, third year clerkships. The senior student is offered the opportunity to work as a clinician in direct association with members of the clinical faculty in Medicine who are actively practicing in a community setting. Participating student practitioners will share with their preceptors the daily tasks of caring for patients seen in both office and hospital practice. Emphasis will be placed on increasing the student's skill in diagnosing and treating those conditions most commonly encountered in these settings. In addition, guidance will be offered in analyzing the determinants of effective medical care and in linking the problems of individuals to those of the community in which they live. *Three students each elective period.* Pickard, Bryan, McKay, Ney, Nuzum and associates.

DEPARTMENT OF NEUROLOGY

Professor: Thomas W. Farmer
Associate Professors: C. E. Morris, L. A. O'Tuama, M. P. Remler
Assistant Professor: C. D. Hall
Instructors: L. W. Boyles, J. C. Allen
Clinical Professor: H. William Gillen
Clinical Assistant Professors: M. S. Wingfield, C. C. Haworth, Jr., Joseph W. Stiefel, Martin A. Hatcher, Khye Weng Ng

Electives

402. NEUROLOGY RESEARCH (6). Prerequisite, two years of medical school. Research in Neurology either within the Department of Neurology or in connection with one of the preclinical departments. Nature of the research activity will be arranged to fit the needs of the student. *Two students each elective period.* Staff.

403. CLINICAL NEUROLOGY (6). Prerequisite, third-year medical clerkship. Neurologic rotation divided between new patient work-ups in the Out-patient Department, work-up of selected in-patients, and experience in laboratory procedures relating to Neurology. Precise program can be modified to some extent to fit the needs of the student. *Three students each elective period.* Farmer, Morris, Remler, O'Tuama, Hall, Allen, Boyles.

404. ACTING INTERNSHIP IN NEUROLOGY (6). Prerequisite, third-year medical clerkship. As an acting intern, the student will accept two to three patients per week on the neurologic service. Study of individual patients in depth with appropriate guidance in neuroradiology, neuropathology, electrophysiology, and other related areas. *One student each elective period.* Farmer, Morris, Remler, O'Tuama, Hall, Allen, Boyles.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Professors: Charles H. Hendricks, M.D., *Chairman,* Edward H. Bishop, M.D., William E. Easterling, Jr., M.D., Luther M. Talbert, M.D.

Associate Professors: William E. Brenner, M.D., Jaroslav F. Hulka, M.D., Frederick G. Wiegand, M.D., Jack P. Mercer, M.D.

Assistant Professors: James R. Dingfelder, M.D., Lamar E. V. Ekbladh, M.D., Wesley C. Fowler, Jr., M.D., Mary Susan K. Fulghum, M.D., John C. Hisley, M.D., Guy Photopulus, M.D., G. Fletcher Rieman, M.D., Fred D. Summers, Jr., M.D., Leslie A. Walton, M.D.

Instructors: Ramesh M. Shah, M.D., Linda G. Staurovsky, R.N.

Clinical Associate Professors: R. Pinkney Rankin, Jr., M.D., O. Hunter Jones, M.D., Bobby A. Rimer, M.D.

Clinical Assistant Professors: John E. Burnett, Jr., M.D., James H. Burrus, M.D., Takey Crist, M.D., Courtney D. Egerton, M.D., W. Davis Fort, M.D., Thomas B. Greer, M.D., Samuel L. Parker, M.D., Sandra I. Regenie, R.N.

Clinical Instructors: Harvey Adams, M.D., John M. Bishop, M.D., Guy H. Branaman, M.D., John I. Currie, M.D., Paul A. Fleming, M.D., Warner L. Hall, M.D., Richard I. Hayes, M.D., Windsor A. Holt, M.D., John A. Kirkland, M.D., Bennett W. LaPrade, M.D., Richard E. Lassiter, M.D., Lloyd D. Lohr, M.D., Rilla R. Murray (Social Work), Frances Muth (Social Service), William A. Nebel, M.D., Lynette Russell, R.N., Arthur R. Summerlin, M.D.

Third Year

Required Clinical Clerkship

Each member of the third year class is assigned for a period of six weeks as clinical clerk in the Department. Students participate actively in the prenatal, intrapartum, and postpartum care of normal and abnormal obstetrical patients. They are actively concerned with the diagnosis and treatment of minor and major gynecological problems in the Outpatient Department and on the hospital wards. Three or six weeks of the clerkship may be spent in an affiliated community hospital.

Electives

UTERINE PHYSIOLOGY. Studies of uterine contractility of various phases of the menstrual cycle and during labor and delivery. Hendricks, Brenner and staff.

GYNECOLOGIC ONCOLOGY. Student will work closely with chief resident and attending in Tumor Clinic. They will also work in the Dysplasia Clinic held two hours each week. Students will observe, and when possible, participate in gyn-cancer operations. They also will be encouraged to become involved in some projects in the Tumor Registry. Weekly review of pathology slides will be supervised. Fowler, Photopulos, Walton and staff.

ACTING INTERNSHIP/NCMH. The student will serve as an Acting Intern in Obstetrics and Gynecology and will function at an increased level of responsibility. He may vary his experience as he wishes to emphasize any area of Obstetrics and Gynecology. Hendricks and staff.

ACTING INTERNSHIP/CHARLOTTE MEMORIAL HOSPITAL. The student will function at an increased level of responsibility as compared with the third year

clerkship. Emphasis may be placed on Obstetrics, Gynecology or outpatient experience as desired by the student. This course offers an excellent opportunity to participate in the practice of obstetrics and gynecology in a large community hospital. Room and board will be furnished by Charlotte Memorial Hospital. Rimer, Hisley and staff.

ACTING INTERNSHIP/NEW HANOVER MEMORIAL HOSPITAL. The student will function as an Acting Intern at New Hanover Memorial Hospital under the direct supervision of the attending staff of New Hanover Memorial Hospital. Experience will consist of a general exposure to both inpatient and outpatient obstetrics and gynecology on a large staff service. Rieman, Shah and staff.

SPECIAL CLERKSHIP ABROAD IN OBSTETRICS AND GYNECOLOGY. Four weeks special clerkships in Obstetrics and Gynecology in various outstanding centers in England, Scandinavia, Holland, Switzerland and Belgium by special arrangement. Contact Dr. Charles Hendricks. Staff of respective center.

PROSTAGLANDIN IN REPRODUCTIVE MEDICINE. The elective offers optional combinations of experience in both clinical and laboratory investigation of the role of the prostaglandins in various areas of reproductive medicine including normal pregnancy, therapeutic abortion, dysmenorrhea, and infertility. According to the student's interest, the elective may be entirely clinically oriented, or limited to laboratory and physiologic studies, or involve a combination of activities. A part-time or full-time time elective may be arranged. Hendricks, Dingfelder, Brenner and staff.

DEPARTMENT OF OPHTHALMOLOGY

Clinical Professor: S. D. McPherson, Jr. *(Acting Chairman)*
Clinical Associate Professors: L. Morgan Hale, G. T. Kiffney, Jr., Lawrence W. Moore, Jr.
Clinical Assistant Professors: J. W. Cline, J. L. Etherington, Edward McG. Hedgpeth, Jr., T. C. Kerns, Jr., M. H. Rubin, Larry Turner
Clinical Instructors: George W. Meyer, H. M. Morrison
Research Fellows: Ronald Snow, Scott A. Brower

Second Year

PRINCIPLES OF EYE EXAMINATIONS. All second year medical students receive three hours of instruction in the basic techniques of eye examinations with special reference on the use of the ophthalmoscope. *Three hours.* Dr. McPherson.

Third Year

CLINICAL OPHTHALMOLOGY. A series of 4 one-hour lectures are given as a survey of basic ocular disorders. Students may elect to spend two weeks working as interns, utilizing both inpatient and outpatient facilities at North Carolina Memorial Hospital and McPherson Hospital. Drs. McPherson, Moore, Hale and staff.

Fourth Year

ADVANCED CLINICAL OPTHALMOLOGY. During the fourth year several students at their election may spend four weeks in Ophthalmology, utilizing the inpatient and outpatient facilities of North Carolina Memorial, McPherson, and Dorothea Dix Hospitals working with the staff and residents in their day to day care of inpatients and outpatients. Drs. McPherson, Moore, Hale and staff.

Research in Opthalmology

Carefully selected students carry out individual research projects and assist members of the staff on selected problems.

Conferences

Students electing to serve during the third and fourth years attend rounds, conferences, and seminars held at North Carolina Memorial Hospital and McPherson Hospital jointly with the ophthalmic House Staff and Attending Staff.

DEPARTMENT OF PATHOLOGY

Professors: J. W. Grisham *Chairman,* K. M. Brinkhous[1], J. B. Graham[1], R. D. Langdell, R. H. Wagner, W. R. Benson, W. D. Huffines, M. C. Swanton, H. R. Roberts, R. P. Hudson, Jr., W. P. Webster, J. D. Geratz, A. J. McBay, F. G. Dalldorf, M. R. Krigman, W. W. McLendon, Edward V. Staab

Associate Professors: E. S. Barrow, J. P. Pick, R. L. Lundblad, J. Savory, D. G. Kaufman, B. E. Statland

Assistant Professors: R. W. Shermer[2], C. N. Carney, N. N. Malouf Anderson, J. E. T. Langingham, J. McQ. McDonagh, P. Mushak, J. T. Daly[3], R. P. McDonagh, W. Nopanitaya, H. A. Cooper, N. A. Hoffman, K. A. Koehler, R. E. Cross, L. M. Killingsworth, L. R. McCarthy, N. B. McDevitt, K. D. Carey, D. H. Walker, T. R. Griggs, P. M. Blatt

Instructors: P. T. Johnson, H. M. Reisner

Research Associate: R. R. Tidwell

Visiting Professor: H. Z. Lund

Visiting Lecturer: D. D. Leonard

Adjunct Professors: A. S. Nash, F. J. de Serres, D. L. Coffin

Adjunct Associate Professors: R. C. Brown, M. W. Lieberman

Adjunct Assistant Professors: C. Kommineni, B. C. Fowler

Adjunct Instructor: H. W. Baird

Clinical Assistant Professor: C. M. Hassell

Postdoctoral Fellows: J. S. Krauss, E. E. Jenkins, J. C. Jennette, F. A. Santos, T. W. Bouldin

Student Fellows: J. C. Lamb, D. M. Rider, B. A. Shinoda, M. A. Lamb, C. N. Vogel, W. Kaufmann, M. J. Mass

Courses for Undergraduate Students in Clinical Pathology

52. CLINICAL PATHOLOGY (3 semester hours). Prerequisites, general chemistry and one course in zoology. An introductory course in the basic principles of human disease. Hematopathology, clinical chemistry, pathophysiology, diagnostic cytopathology, and clinical microbiology will be emphasized. *Two lecture and two laboratory hours a week, spring.* Maynard.

90. PATHOLOGY FOR PHYSICAL THERAPY STUDENTS (3). Prerequisites, anatomy, histology, and physiology. A series of lectures and demonstrations of pathologic processes. Required of all Physical Therapy students. *Fall.* Geratz.

Courses Offered for Students in the School of Medicine, and Dentistry and Suitably Qualified Graduate Students

161s. GENERAL PATHOLOGY (14). Prerequisites, anatomy, histology, physiology, statistics, biochemistry. Required of first-year medical students.

Embraces a consideration of the nature of disease from a number of aspects, emphasizing particularly the chemical, physiological, and genetic as well as the morphologic. A number of integrated exercises comprise the course as follows:

(A). General pathology. Lectures and recitations are combined with laboratory work in a study of disease mechanisms. Each student is supplied with a set of "loan" slides (about 150) which form the basis of histopathological studies.

---

[1] Alumni Distinguished Professor of Pathology.

[2] Leave of absence, July 1, 1975.

[3] Terminated September 30, 1975.

(B). Gross pathology and case teaching. Whenever possible disease mechanisms are illustrated in the laboratory using clinical material. This includes clinical summaries, x-rays, gross organs, photomicrographs, electron micrographs and histologic slides. Some of the material is presented to small groups by faculty members and the rest is available in notebooks with color paragraphs and histologic slides for individual study.

(C). Human genetics. A series of lectures and exercises on the principles of human genetics is presented.

(D). Hematology. An introduction to laboratory and clinical hematology will be presented.

Six lecture and eight laboratory hours a week for eight weeks, spring semester. Staff. Course runs in series with Microbiology, Immunology and Dermatology.

220. NEUROPATHOLOGY (5). Prerequisite, Pathology 161s. Systematic study of the more common diseases of the nervous system, utilizing a gross specimen collection, a microscopic slide set, current autopsy and surgical specimens, and histochemical laboratory. *Two conference and six laboratory hours a week, spring and summer.* Krigman.

221. HEMATOPATHOLOGY (4). Prerequisite, Pathology 161s. A tutorial course to introduce the advanced student to techniques and problems of disorders of the blood. This will cover many aspects of immunohematology, disorders of erythrocytes, disorders of leukocytes and bone marrow studies. *Two conference and six laboratory hours a week, fall.* Langdell.

222. HUMAN GENETICS AND CONSTITUTIONAL PATHOLOGY (5). Prerequisite, Pathology 161s. A tutorial course designed to meet the needs of the student desiring an introduction to the field of human genetics. This includes elementary statistics, basic genetic theory and practical field work in obtaining relevant family information from persons, archives and census records, related to constitutional pathology. *Two conference and six laboratory hours a week, spring.* Staff.

Course Offered for Special Students in Pathology

162. EXPERIMENTAL PATHOLOGY. Prerequisites, physiology and biochemistry. This course is designed for students interested in the study of experimentally produced pathological states. *Hours, credits, and instructor to be arranged.*

Courses Offered Primarily for Students in the School of Dentistry

170. GENERAL, SYSTEMIC AND CLINICAL PATHOLOGY (2). This course includes the study of systematic pathology and related clinical pathology topics. Coordinated with the study of the pathology of the organ systems is the consideration of the techniques and interpretation of pertinent clinical laboratory examinations. Hematology receives major emphasis. Students also study specimens of urine, sputum, exudates, and exfoliative cytological material, and the interpretation of the common blood chemistry determinations. Required of all second year Dental students as part of Oral Medicine 120. *The course spans the fall, spring and summer sessions.* Langdell.

Courses for Graduate Students

107. INTRODUCTION TO NEUROBIOLOGY (Biochemistry 107, Neurobiology 107, Pharmacology 107, Physiology 107) (3). Prerequisites, one course in the biological sciences and permission of the Director of the Neurobiology Curriculum. This is an interdisciplinary course to provide students with an integrative view of modern concepts of Neurobiology pertinent to behavior and mental disease. Topics to be considered are: organization of the nervous system, neurochemistry; neuro-

physiology; neuropharmacology; neurogenetics; computers, etc. *Three lecture hours a week, fall, 1976 and alternate years.* Staff of Neurobiology Curriculum.

166. MOLECULAR BIOLOGY OF BLOOD COAGULATION (3). Prerequisite, Biochemistry 100 or 105, or permission of instructor. A comprehensive presentation of the chemistry and molecular biology of the blood coagulation mechanism including consideration of component proteins, lipids, cofactors, interaction with other homeostatic systems, and control. *Three lectures a week, fall.* Koehler.

211. SURGICAL PATHOLOGY (5). Prerequisite, Pathology 161s. An advanced course devoted to detailed study of surgical pathological material, with special reference to cancer. *Two conference and six laboratory hours a week, to be arranged.* Staff.

212. AUTOPSY PATHOLOGY (5). Prerequisite, Pathology 161s. An advanced course to give students more complete knowledge of human diseases. The students will study postmortem material under the supervision of the staff. *Two conference and six laboratory hours a week, to be arranged.* Staff.

275. GENETICS SYSTEMS (Formerly 155). An advanced course in genetics emphasizing the genetics and molecular biology of viruses, bacteria, fungi, insects and mammals and based upon the personal research of the staff. *Fall 1976-77 and alternate years.* Staff of the Genetics Curriculum.

290. SEMINAR IN NEUROBIOLOGY (Biochemistry 290, Neurobiology 290, Pharmacology 290, Physiology 290, Zoology 290) (3). Prerequisites, one graduate course in the biological sciences and permission of the Director of the Neurobiology Curriculum. An integrative consideration of selected topics and problems associated with the nervous system and behavior. *Three lecture hours a week, fall and spring.* Staff of Neurobiology Curriculum.

301. SEMINAR IN PATHOLOGY (2). Prerequisite, Pathology 161s. This course consists of seminars designed to acquaint the student with recent literature in pathology, particularly as it relates to research activities carried on within the Department. *Three hours a week, to be arranged.* Staff.

302, 303, 304. RESEARCH IN PATHOLOGY (3 or more hours). These courses are designed to give advanced students in pathology an opportunity to carry on investigations on the mechanism of disease. Current research programs in progress deal with blood coagulation, hemorrhagic diathesis, thrombosis, cold injury, human genetics, pulmonary pathology, chemical carcinogenesis, hepatic injury and recovery, and immunohematology. *Ten or more laboratory hours a week.* Staff.

310. RESEARCH IN NEUROBIOLOGY (Biochemistry 310, Neurobiology 310, Pharmacology 310, Physiology 310, Zoology 310) (3-12). Prerequisites, permission of a staff member and the Director of Neurobiology Curriculum. Research in various aspects of Neurobiology. *Six to twenty-four hours a week, fall and spring.* Staff of Neurobiology Curriculum.

393. MASTER'S THESIS (3-6). *Fall and spring.* Staff.

394. DOCTORAL DISSERTATION (3 or more). *Fall and spring.* Staff.

400. GENERAL REGISTRATION (0).

Pathology Electives for Fourth Year Medical Students

401. SURGICAL PATHOLOGY (12). Prerequisite, first two years of medical curriculum. Instruction and experience will be obtained in the following: the examination and diagnosis of surgical pathology specimens, the processing of tissues, the use of histochemical techniques, and gross and microscopic photographic methods. Participation in conferences and seminars and detailed study of one selected disease entity for oral presentation at Pathology Staff Conference will be

expected. *Two students four times a year for two consecutive elective periods.* Benson, Carney.

402. AUTOPSY PATHOLOGY (12). Prerequisites, first year of medical curriculum and permission of instructor. Students will act as prosecutors on the regular autopsy service, conducting gross and microscopic autopsy studies under supervision, and presenting their cases for discussion at staff seminars. Each student will be expected to complete and write full reports on 10 to 15 cases. *Three students for two secutive periods each.* Dalldorf and staff.

403. HEMATOPATHOLOGY (6). Prerequisite, first two years of medical curriculum. Comprehensive exposure to immunohematology including general principles of both blood banking and clinical coagulation. Practical experience will be obtained in the diagnosis and management of patients with coagulation disorders and leukemia. *Two students each elective period.* Langdell, Roberts, Laningham.

404. BLOOD BANKING (6). Prerequisites, 1 year in medical school students will learn technical, theoretical, and clinical aspects of blood transfusion services (donors, component therapy, patient problems, hemolytic disease of the new born, etc.). He will attend conferences at which patients who are blood bank problems are discussed, and will be expected to take call with the resident on nights and weekends. Opportunity can be made for specific laboratory projects if the student is interested. *Two students each elective period.* Laningham and staff.

405. NEUROPATHOLOGY (6). Prerequisite, first year of medical curriculum. Systematic study of the most common diseases of the nervous system, utilizing primarily autopsy material. Tutorial instruction and active participation in neuropathology and neurobiology seminars. *Two students four times a year for one elective period.* Krigman.

406. HUMAN GENETICS AND CONSTITUTIONAL PATHOLOGY (6). Prerequisite, first year of medical curriculum. The program will consist of a reading course in current literature on human genetics, two-hour weekly meetings with instructor, and field-work and/or laboratory analysis of a family with a genetically determined disease. *Two students four times a year for one elective period.* Graham.

407. EXPERIMENTAL CARCINOGENESIS (6). Prerequisite, first two years of medical curriculum. The exploration of factors concerned with the inception and natural history of neoplastic diseases. Pathogenesis, biological behavior, and response to therapy will be investigated by means of a combined experimental and seminar curriculum. The role of chemical agents, physical factors, viruses, and the modifying effect of genetic factors in the induction of cancer will be studied. *One student each elective period.* Grisham, Kaufman.

408. BLOOD COAGULATION (6). Prerequisites, completion of all clinical clerkships and permission of instructor. An intensive indoctrination in clinical and laboratory aspects of coagulation. There will be didactic lectures, seminars, lab time, and considerable patient contact. Night and weekend call will be expected. *One student. Elective period to be arranged.*

410. PRINCIPLES OF ELECTRON MICROSCOPY (6). Prerequisite, first year of medical curriculum. Introduction to the principles and techniques of electron microscopy. *One student each elective period.* Nopanitaya.

411. RESEARCH (6). Prerequisites, first year of medical curriculum and permission of the Chairman of the Department. Independent research conducted under the supervision of a senior staff member. The maximum number of students will depend upon the research projects and facilities needed as determined by the appropriate faculty member. *One elective period.* Staff.

416. FORENSIC PATHOLOGY (6). Prerequisite, completion of first year. This clerkship is equivalent to a three month acting internship in pathology with emphasis on anatomic pathology. Student will assist medical examiners at medical legal

autopsies and the associated toxicological and legal aspects of particular cases. This experience should provide opportunity to participate in all areas of medical legal science including the court room as well as the pathology laboratory. *One student each elective period.* Hudson and staff.

450. ELECTIVE IN DOMESTIC OR FOREIGN SETTING OUTSIDE THE SCHOOL OF MEDICINE (6). An exposure to medicine and medical science in settings other than the Medical School can be most worthwhile educational experience for the student. Proposals for such work for credit must be submitted to the Committee on Electives for their approval. Reports on the student's program will be made to the Chairman of the Department by both the student and the sponsor. *One or more elective periods.*

DEPARTMENT OF PEDIATRICS

Professors: H. R. Chamberlin, W. A. Clyde, Jr., F. W. Denny *(Chairman),* D. Dunphy, H. S. Harned, Jr., H. N. Kirkman, C. W. McMillan, C. A. Miller, J. J. Van Wyk
Associate Professors: G. W. Fernald, F. S. French, R. T. Herrington, A. M. Johnson, K. J. Levin, F. A. Loda, S. N. Nayfeh, L. E. Underwood, C. A. Taylor, M. K. Sharpless
Assistant Professors: J. H. Bryan, P. D. Buchanan, J. C. Coffey, A. M. Collier, H. A. Cooper, L. M. Cutchin, J. S. Dalldorf, R. G. Dillard, R. Falk, R. A. Greenberg, S. H. Gehlbach, V. Hebbert, G. C. Hemingway, M. P. Hemstreet, D. L. Ingram, A. M. Johnson, A. T. Johnson, E. N. Kraybill, C. R. Morris, L. A. O'Tuama, S. A. Schall, B. Stabler, A. Aylsworth
Instructors: J. E. Schwankl, C. M. Stuart, J. C. Allen
Lecturer: E. Shute
Clinical Professors: Abram Kanof, A. H. London, Jr., S. F. Ravenel
Clinical Professor, Emeritus: Sidney S. Chipman
Adjunct and Clinical Associate Professors: E. P. Benbow, Jr., E. L. Ford, B. L. Galusha, T. A. Henson, J. E. Lynch, Jr., N. Morris, S. T. Morrow, J. C. Parke, Jr., M. E. Pizer, A. S. Rubin, T. Scurletis, R. J. Senior, C. I. Sheaffer, E. Siegel, G. K. Summer, C. H. Weatherly, J. S. White, Jr., J. H. Knelson, F. X. C. Knobeloch
Clinical Assistant Professors: Jerry C. Bernstein, R. V. Berry, J. D. Bridgers, W. A. Brown, H. D. Bruton, R. Meade Christian, W. M. Clarke, E. B. Coley, W. G. Conley III, S. P. Dawson, G. C. Dickson, J. D. Fletcher, P. B. Follo, V. G. Herring, William C. Hubbard, Olson Huff, R. S. Kelly, Jr., R. H. Levine, W. L. London, J. W. Lynn, E. R. Neely, T. B. Nolan, S. D. Ravenel, W. A. Robie, F. S. Shaw, J. W. Singer, D. D. Smith, H. B. Spangler, J. W. Whatley, Allen E. Cato
Clinical Instructors: A. P. Askew, D. B. Braxton, R. M. Doughten, B. L. Ferguson, M. M. McLeod, W. Michal, J. F. Morris, W. C. Powell, K. B. Salameh
Research Associate: R. P. Weaver
Research Assistant: C. J. Decedue
Family Nurse Practitioner: J. M. Watkins

First and Second Years

There are no courses in pediatrics per se during the first two years. Instead, members of the faculty in pediatrics participate in the teaching of courses which pertain to their subspecialty area. Thus, pediatric cardiologists are involved in the course on cardio-pulmonary physiology, the pediatric biochemical geneticist teaches in the course in cell biology and the pediatric infectious diseases staff are integral members of the teaching group in immunology and microbiology. Since most members of the pediatric faculty are involved in courses in the first two years the great importance of growth and development in the overall understanding of medicine is stressed and the dynamic aspects of medicine during childhood are emphasized

In addition to the above exposure to pediatric faculty in lecture and laboratory sessions, second year students are introduced to pediatric patients during their physical diagnosis course.

Third Year

For one-sixth of this first clinical year students work primarily in small groups as clerks on the pediatric wards, where under supervision each student participates in the study and care of individual patients. Here he has an opportunity to cultivate proficiency in interviewing, in the examination of infants and children, and in the establishment of friendly rapport with children and their families. Through actual experience with patients, daily attendance at ward rounds, guided reading, and frequent conferences with members of the staff, the student augments his knowledge and understanding of the diseases which affect infants and children and the extent to which physical, emotional, genetic, and environmental factors play a part. Experience with common acute pediatric problems is gained by scheduled attendance in the Pediatric Primary Care Clinic.

Although the emphasis during this year is placed on the development of competence in the diagnosis of illness and on comprehensive care of children who are not well, the importance of health preservation is also recognized. All possible clinical opportunities are utilized to observe and evaluate evidence of both normal and abnormal growth and development. Each student serves as clinical clerk in the newborn and premature nurseries for a brief period. Several newborn infants are assigned to each.

Electives

401. ACTING INTERNSHIP AT MOSES CONE HOSPITAL (6). This program provides the opportunity to participate as an acting intern in the diagnosis and management of pediatric patients in a large community hospital. Under the supervision of the attending physician the student will have responsibility for both service patients and private patients admitted by pediatricians practicing in the Greensboro area. Experience will be provided in both the ward and emergency room services and when possible in the Children and Youth Program Clinic in Greensboro. We are also able to provide an acting internship on our nursery service with experience in normal and intensive care nurseries under the supervision of a full-time neonatologist. This elective provides the opportunity to gain insight into the role of the pediatrician in community practice, together with the opportunity to participate in a busy, well supervised ward service. *Two students each elective period.* Sharpless, Dillard and staff.

402. PEDIATRIC CARDIOLOGY (6). The student will be involved with various types of congenital and rheumatic heart diseases as they occur in children in ward and outpatient settings, including outreach clinics. Attempts will be made to help the student organize into a meaningful fashion the manifestations of anatomic and physiologic abnormalities of the cardiovascular system. He will be expected to become proficient in physical diagnosis as related to the heart, as well as to become familiar with the principles of electrocardiography. He will observe and assist at cardiac catheterizations and participate in the interpretation of the data obtained. An introduction to interpretation of non-invasive laboratory techniques, such as echocardiography and phonocardiography will be given. *One student elective periods 1, 4, 5, 6, 7, 8, 9, 10, 11, 12.* Harned, Herrington, and Schall.

404. ACTING INTERNSHIP AT CHARLOTTE MEMORIAL HOSPITAL (6). Acting internship experience is provided in an 830-bed teaching hospital with 65 pediatric and 14 pediatric intensive care beds. The AI may elect one of the following: (1) Combination of in-patient and out-patient services, (2) General and subspecialty out-patient clinics, (3) Newborn service including newborn intensive care unit. Specific activities include: (1) Direct patient care on the inpatient service supervised

by pediatric residents and attending staff, (2) Participation in Pediatric Emergency Room area including care of trauma, (3) Experience in a daily acute ambulatory Pediatric Clinic with consult, (4) Office bacteriology, (5) Term new born, premature and newborn intensive care under the supervision of Pediatric Residents and Dr. Parke, (6) Visits to private pediatric offices. This rotation helps students gain experience in inpatient and outpatient pediatrics in the setting of a fully staffed and well-equipped regional community hospital and medical center. *One student each elective period.* Full-time staff–Galusha, Parke, Schwartz and 35 attending Pediatricians.

405. PEDIATRIC INFECTIOUS DISEASES (6). Experience is provided in both the basic and applied aspects of childhood infectious diseases. Working primarily with the specialty residents and faculty consultants, the student may participate in: (1) daily rounds for review of hospitalized cases and answering consultation requests; (2) infectious disease clinics for evaluation and disposition of ambulatory patients; (3) clinical microbiology laboratory; (4) weekly infectious disease conference; and, (5) limited investigative research by special arrangement. The schedule enables insight into practical diagnosis and therapy correlation of laboratory and clinical data and the theoretical basis of patient management. *Two students each elective period.* Clyde, Collier, Denny, Fernald, Ingram and Powell.

406. MEDICAL GENETICS (6). Available to students interested in principles of medical genetics, as applied to clinical practitice. Students will assist in evaluation and counseling of patients referred to the Genetic Counseling Clinic. Emphasis is given to recognition of conditions for which genetic counseling is advisable. The course offers exposure to selective problems of chromosomal abnormalities, antenatal diagnosis, common malformations, and single-gene diseases. Each student assists in the after-clinic evaluation of his patients in one of three categories: cytogenetic techniques, biochemical studies or library review. *Two students each elective period.* Kirkman and staff.

407. DEVELOPMENTAL DISABILITIES (6). This elective, centering in the Division for Disorders of Development and Learning and in part in the pediatric neurology clinic (Allen, O'Tuama, and Chamberlin), will focus on both normal and abnormal child development. The student, as an active member of a multidisciplinary team, studies the neurological evaluation and neuropediatric assessment of development along with extensive exposure to parallel methods of assessment and of therapy in psychology, speech and hearing, physical therapy, occupational therapy, nutrition, special education, child psychiatry, nursing, and social work. Each student's program will be specifically tailored and may include in-depth contact with biochemical screening methods, genetic assessment and counseling, special diagnostic aids used in neurology, specialized classroom settings (with visits to the Frank Porter Graham Center), methods of interview and interpretation with parents, home visits, with assessment of both family environment and community resources, and/or behavior modification techniques. *One student (except by special arrangement) for elective periods 1, 4, 5, 6, 7, 8, 9, 10, 11, 12.* Chamberlin, Allen, Dalldorf, Stuart, Routh, Schroeder, Knobeloch, Patterson, Schmitt, Parr and others.

408. PEDIATRIC HEMATOLOGY. Exposure is provided to the theories and practices of clinical hematology, with particular emphasis on pediatric problems. Patients in the in-patient and out-patient services will be studied and discussed in regard to diagnosis and management of their disease. Conferences will be held regularly to discuss general hematologic topics. Opportunities will be available to develop competence in the performance of basic hematologic laboratory procedures, with an emphasis on preparation and interpretation of blood and marrow smears, the reticulocyte count, coagulation tests, and electrophoresis procedures on hemoglobin and haptoglobins. This elective allows the development of special skills which are probably applicable to all areas of medicine, and at the same time allows insight into the specific problems of pediatric hematology and oncology. *Two students elective periods 1, 4, 5, 6, 7, 8, 9, 10, 11, 12.* McMillan, Johnson, Bryan and London.

409. AMBULATORY PEDIATRICS. The program is designed to expose students to the spectrum of pediatric problems seen in the outpatient population, as well as to develop knowledge and skills necessary to provide continuing health supervision. The student will primarily work in the Primary Care-General Pediatric Clinic but will also have the opportunity of functioning in subspecialty clinics. A daily conference with house staff, attending, and private practicing physicians is held during which the diagnosis and management of patients seen is discussed. Under the direction of the Pediatric Infectious Disease Division the students will become proficient in the use of office bacteriology. *Two students each elective period.* Herrington, Hamrick and staff.

410. PEDIATRIC NEUROLOGY (6). A broad-based introductory course in the major clinical problems encountered in childhood neurology is offered. In the out-patient clinic the student will be exposed to the problems of developmental disorders, learning difficulty and seizure disorders. Experience on the in-patient services includes exposure to primary neurological diseases and neurological complications of common pediatric illnesses. Some emphasis will be laid on giving the student an adequate exposure to the newer aspects of neurologic investigation. *One student each elective period.* O'Tuama, Allen and staff.

411. NEONATOLOGY AT WAKE (6). The course is intended to provide supervised clinical and didactic experience in neonatology in a Level II Community Hospital to fourth year medical students. It will include one week of normal and transitional or intermediate care and the remaining time will be intensive care. The on-call schedule will be similar to the pediatric intern, but the experience will differ in the following ways: (1) The student will be asked to present a topic of his choice in neonatology, or discuss in detail at one of the teaching conferences, (2) The student will be expected to present his patients at rounds, (3) The patient load will be limited, (4) Tutorial sessions will be provided weekly by the neonatologist, and as needed by the resident assigned to the nursery, (5) An evaluation of the student and the clerkship will be discussed with the student at the end of the rotation. *One student elective periods 1, 2, 4, 6, 7.* Thullen.

412. ENDOCRINOLOGY (6). Experience is provided with patients with documented endocrine disorders in the Endocrine and Diabetes Clinic in the Department of Medicine and in the Pediatrics Endocrine Clinic. Specific activities include consultation rounds in the hospital wards and the clinical research unit, work-up of clinic patients, and conferences with the attending staff. The program allows insight into the diagnosis and management of specific endocrine problems, but also emphasizes growth and development and maturational concepts applicable to the general practice of medicine. *Three students each elective period.* French, Ney, Van Wyk, Underwood, Ontjes, Gray and Steiner.

413. NEPHROLOGY (6). A rational approach is provided to the pediatric approach to abnormalities in renal function or in acid-base or salt and water balance. Supervised reading, self instruction, supplemented by weekly tutorials, review of diagnostic techniques and discussion of major clinical conditions such as acute and chronic renal failure and the nephrotic syndrome, will be provided. Commonly encountered problems in pediatric nephrology will be discussed in the context of clinical experience with patients from the out-patient service. Consultative evaluation will be performed on selected in-patients.

This elective is given in combination with Medicine 413, Nephrology, and occupies 11/2 days per week. *Four students elective periods 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.* Morris and Conley.

414. ACTING INTERNSHIP IN NEONATOLOGY (6). The course is intended to provide supervised clinical experience in neonatology, with tutorial support, to 4th year medical students. The patient load will be limited, additional technical and theoretical assistance will be provided by the Junior Assistant Resident as required,

selected bibliography will be furnished and tutorial sessions will be provided as needed by Dr. Kraybill. *One student elective periods 2, 5, 8, 11.* Kraybill.

415. ACTING INTERNSHIP AT WAKE MEMORIAL HOSPITAL (6). The acting intern will be part of a N.C.M.H. house staff team. There are 26 beds for children on a combined Pediatrics-Surgery ward and a routine and special care nursery that provides care to 1500 infants yearly. The acting intern will be responsible primarily for patients on the ward and in the nurseries. This elective is designed to give an exposure to the type of illness seen in a community hospital while providing a close association both with faculty preceptors and practicing physicians. *Two students elective periods 4, 5, 6, 7, 8, 9, 10, 11, 12.* Wake Memorial Hospital and UNC faculty.

416. ACTING INTERNSHIP IN COMMUNITY PEDIATRICS (6). During the four week elective the student lives in the community and works with physicians on alternate nights and weekends in the emergency room of Edgecombe General Hospital, a 125-bed county-owned modern hospital, and during the day in the group practice facility in the Tarboro Clinic, a thirteen-man multispecialty group practice located adjacent to Edgecombe General Hospital. He is responsible for the admitting history and physical evaluation on those patients who require admission, and is responsible for them during hospitalization. The student will attend daily teaching rounds by members of the Tarboro Clinic staff and will spend brief periods of time in a solo practitioner's office, the local mental health facility, the Edgecombe County Health Department and Edgecombe County Social Service Office. The student is encouraged to view community problems as a whole and to formulate an approach towards improving a particular community situation. *Two students each elective period.* Cutchin, Hemingway and Herring.

450. ELECTIVE IN DOMESTIC OR FOREIGN SETTING OUTSIDE THE SCHOOL OF MEDICINE (6). An exposure to medicine and medical science in settings other than the Medical School can be a most worthwhile education experience for the student. Proposals for such work for credit must be submitted to the Committee on Electives for their approval. Reports on the student's program will be made to the Chairman of the Department by both the student and the sponsor. *One or more elective periods.*

DEPARTMENT OF PHARMACOLOGY

Professors: P. L. Munson *(Chairman)*[1], T. C. Butler, F. W. Ellis, P. F. Hirsch[2], W. H. Pearlman, W. E. Stumpf[3], R. V. Talmage[4]

Associate Professors: H. J. Burford, C. W. Cooper, K. H. Dudley, J. T. Gatzy, Jr., B. Goz, C. Harper, D. E. McMillan, T.-C. Peng, D. T. Poole, B. J. Stover, S. U. Toverud, G. R. Breese[5], T. K. Gray[6], R. A. Mueller[7], D. A. Ontjes[6], A. L. Steiner[6]

Assistant Professors: J. S. Kizer, J. D. Leander, B. R. Cooper[5], L. A. O'Tuama[8], W. K. Ramp[9], J. F. Rogers[6]

Lecturer: P. N. Witt[10]

Clinical Associate Professor: Y. W. Cho[11]

---

[1] Sarah Graham Kenan Professor of Pharmacology and Endocrinology.
[2] Director, Dental Research Center.
[3] Department of Anatomy (Laboratories for Reproductive Biology).
[4] Department of Surgery (Orthopedic Research).
[5] Department of Psychiatry (Child Development Institute).
[6] Department of Medicine.
[7] Department of Anesthesiology.
[8] Departments of Medicine and Pediatrics.
[9] Department of Oral Biology and Dental Research Center.
[10] Research Division, Department of Mental Health, State of North Carolina.
[11] Wellcome Research Laboratories.

Clinical Assistant Professor: J. E. Maines III[11]
Adjunct Professors: P. Cuatrecasas[11], G. B. Elion[11], J. R. Fouts[12], G. H. Hitchings[12], R. A. Maxwell[11], C. A. Nichol[11], D. P. Rall[12]
Adjunct Associate Professors: L. G. Hart[12], R. E. Staples[12], E. W. Van Stee[12]
Postdoctoral Research Fellows: K. Ku[13], J. H. Maguire[14], S. Stern[14], D. B. Tuey[14]
Postdoctoral Research Associate: G. T. Barthalmus[15]
Predoctoral Research Trainees: M. J. Clarke[13], M. R. Hampel[13], E. G. Kraus[13], J. Pompey[13], W. A. Spruill[13], N. W. Stowe[13], M. L. Thomas[13]
Graduate Research Assistants: T. S. Barlow, G. D. Frye, C. S. Kim, C. A. Lantz, D. W. Payne, J. T. Skinner, M. J. Stutts, K. B. Touw, J. L. Van Anda, W. R. Wharton, J. Williams
Graduate Teaching Assistants: R. E. Chapin, C. A. Hart, G. Nicholson
Graduate Students, M.D./Ph.D. Program: A. S. Hollister, D. K. Ways
Part-Time Graduate Student: N. E. Harto

Courses Offered for Undergraduate Students

55. GENERAL PHARMACOLOGY (6). Prerequisites, all preceding courses in chemistry and medical sciences in the pharmacy curriculum or their equivalent. A course for pharmacy students. General principles, as they apply to the major drug classes will be stressed. *Five lecture and three laboratory hours a week, spring.* Dudley, Burford and associates.

90. INTRODUCTION TO NEUROBIOLOGY (Biochemistry 90, Pharmacology 90, Physiology 90, Pathology 90, Psychology 90) (3). Prerequisites, one course in the biological sciences and permission of the instructor or the Associate Director for Training of the Neurobiology Program. This is an interdisciplinary course to provide an integrative view of major topics in the science concerned with the nervous system. *Three lecture hours a week, fall.* Neurobiology Staff.

Courses Offered for Suitably Qualified Undergraduate and Graduate Students

105. TECHNIQUES IN MOLECULAR ENDOCRINOLOGY (4). Prerequisites, Biochemistry 100L, 105, or equivalent, and permission of the instructor. A theoretical and practical guide to the chemical study of hormone levels in tissues, hormone-protein interactions, hormone dynamics, and hormone-regulated membrane transport. *Two lecture and four laboratory hours a week, fall, 1976 and alternate years.* Pearlman.

106. CURRENT CONCEPTS IN MOLECULAR ENDOCRINOLOGY (2). Prerequisites, Biochemistry 100 or equivalent, and permission of the instructor. Recent research in chemical endocrinology bearing on the biology of reproduction, normal growth and development, and cancer; mechanisms of hormone action and other topics. *Two lecture hours a week, fall, 1975 and alternate years.* Pearlman.

110. TECHNIQUES IN PHYSIOLOGICAL PHARMACOLOGY (3). Prerequisites, Pharmacology 216 and permission of instructor. Students will learn and perform a variety of physiological techniques often used in classical pharmacological research. *One lecture and six laboratory hours a week, spring, 1976 and alternate years.* Staff.

118. NEUROENDOCRINOLOGY (Anatomy 118) (2). Prerequisite, permission of the instructor. A review of presently held concepts in neuroendocrinology with emphasis on topographical aspects of brain structures related to hormone action.

---

[11] Wellcome Research Laboratories.
[12] National Institute of Environmental Health Sciences.
[13] U.S. Public Health Service Training Grants.
[14] Fellow of the U.S. Public Health Service.
[15] On leave from Department Zoology, North Carolina State University.

Emphasis on endocrine functions as related to neuropharmacology, behavior, consolidation of memory, psychopathology, neurophysiology and neuroanatomy. *Two lecture hours a week, spring, 1976 and alternate years.* Stumpf.

123. BEHAVIORAL PHARMACOLOGY (Psychology 123) (3). Prerequisites, Pharmacology 216, or Psychology 101 and 106, or their equivalents. Basic principles of pharmacology and of the experimental analysis of behavior will be considered in relation to the behavioral pharmacology of central nervous system stimulants, antidepressants, tranquilizers, hallucinogens and narcotics. *Two lectures and two laboratory hours a week, spring, 1977 and alternate years.* McMillan.

134. PHARMACOLOGY (DENT 123) (3). A course for second year students in the School of Dentistry. *Two lecture hours a week and special assignments, fall.* Toverud and associates.

135. BIOLOGICAL SCIENCES LABORATORY (DENT 124) (3). "In-depth" laboratory experience in pharmacology for students in the School of Dentistry. *Five laboratory and conference hours a week, fall and spring.* Toverud and associates.

Courses Offered for Graduate Students

211, 212. INTRODUCTION TO PHARMACOLOGICAL RESEARCH (4 each). A course for first-year graduate students majoring in Pharmacology. A series of research projects of limited scope, each pursued for a 4 to 8 week period under the supervision of a different faculty member. *Twelve laboratory hours a week, fall and spring.* Cooper and associates.

216. PRINCIPLES OF PHARMACOLOGY (5). Prerequisites, Biochemistry 105, Physiology 102, or their equivalents, and permission of the instructor. This course is intended to introduce the major areas of pharmacology and to serve as the basis for more advanced courses such as Pharmacology 217 and 218. The course is oriented toward graduate students. *Five lecture hours a week, spring.* Goz and associates.

217, 218. ADVANCED PHARMACOLOGY (3 each). Prerequisites, Pharmacology 216 or its equivalent, and permission of the instructor. An advanced treatment of the principal subdivisions of pharmacology including toxicology. *Three lecture hours a week, fall and spring.* Stover and associates.

221. TUTORIAL IN PHARMACOLOGY (3 or more). Prerequisites, Pharmacology 216 or its equivalent, and permission of the staff. Students will spend 4-6 week periods with selected instructors reading in depth in specialized field of pharmacology. *Oral presentations and written reports will be required, fall, spring and summer.* Staff.

231. THEORY OF RATE PROCESSES IN PHARMACOLOGY (3). Prerequisites, Pharmacology 216, or its equivalent, or physical chemistry, and permission of the instructor. Theory of the effects of temperature, pressure, chemical environment (including drugs), and time on biochemical and living systems. *Three lecture hours a week, fall.* Stover.

290. SEMINAR IN NEUROBIOLOGY (Biochemistry 290, Neurobiology 290, Pathology 290, Physiology 290) (3). Prerequisites, one graduate course in the biological sciences and permission of the Director of the Neurobiology Curriculum. Selected topics associated with the nervous system and behavior. *Spring.* Members of the Neurobiology Program.

301. RESEARCH IN PHARMACOLOGY (5 or more). Prerequisite, permission of the staff. *Fall, spring, and summer.* Staff.

310. RESEARCH IN NEUROBIOLOGY (Biochemistry 310, Neurobiology 310, Pathology 310, Physiology 310, Psychology 310, Zoology 310) (3-12). Prerequisites, permission of a staff member and the Director of the Neurobiology Curriculum. Research in various aspects of Neurobiology. *Six to twenty-four hours a week, fall and spring.* Members of the Neurobiology Program.

330. SEMINAR IN RECENT ADVANCES IN PHARMACOLOGY (1). Students will meet as a group with faculty members to summarize and discuss the important current pharmacological literature. *One hour a week, fall and spring.* Cooper.

331. SEMINAR IN GENERAL PHARMACOLOGY (1). A series of weekly lecture-seminars by graduate students, faculty members and visiting scientists on current research in pharmacology. *One hour a week, fall and spring.* Munson, Peng.

393. THESIS FOR MASTER'S DEGREE (3 or more). Prerequisite, permission of the staff. *Fall, spring and summer.* Staff.

394. DOCTORAL DISSERTATION (3 or more). Prerequisite, permission of the staff. *Fall, spring and summer.* Staff.

400. GENERAL REGISTRATION (0).

DEPARTMENT OF PHYSIOLOGY

Professors: E. R. Perl *(Chairman),* N. A. Coulter[1], F. L. Eldridge[1], E. B. Kokas, M. Kuno, A. T. Miller, Jr., R. L. Ney[1], J. H. Perlmutt, E. L. Rolett[1]
Professor Emeritus: J. H. Ferguson
Associate Professors: M. L. Berkut[1], R. L. Glasser, E. R. Kafer[1], R. A. King[1], B. L. Whitsel, L. R. Yonce
Visiting Associate Professors: A. Rustioni[1], C. J. Vierck, Jr.
Adjunct Associate Professors: J. C. Houk, G. S. Malindzak, Jr.
Assistant Professors: W. J. Arendshorst, M. A. Cook, D. A. Dreyer[1], J. C. Daw, P. B. Farel, P. R. Loe, R. P. McDonagh[1], D. L. McIlwain, G. W. D. Meissner[1], V. Neelson[1], R. W. Sealock, D. L. Trevino, J. N. Weakly
Adjunct Assistant Professors: J. J. G. Boivie, B. Lynn
Part-time Instructor: J. S. King
Lecturers: J. J. Capowski, E. G. W. Ennis[1], D. M. Smith
Postdoctoral Fellows: R. C. Beesley, P. E. Giebel, M. C. McNamara, W. R. Proctor, W. S. Spielman
Visiting Research Associates: G. Czeh, N. Kudo
Research Assistant: C. Metz
Graduate Research Assistants: W. H. Beierwaltes, C. Kwan, T. McKenna, S. A. O'Neil, M. J. Sedivec, D. Sircar, A. M. Surprenant

90. BASIC PHYSIOLOGY (4). Prerequisites, Anatomy 41 or equivalent and admission to Medical Allied Health Curriculum. A course in basic human physiology of the organ systems with emphasis on clinical relevance and application. Required of radiologic science majors and available to other Medical Allied Health students by permission of the instructor. *Three lecture and two laboratory conference hours a week, spring.* Ennis.

92. INTRODUCTION TO PHYSIOLOGY (5). Prerequisites, Chemistry 11 and 12 or Biochemistry 7 and 8, Zoology 41, or equivalents. A course in basic human physiology and an appreciation for its clinical application. Emphasis is on body fluids, various organ systems, and their interrelationships. Required of nursing students and available to other students by permission of the instructor. *Four lecture and two recitation-conference hours a week, fall.* Yonce and staff.

93. INTRODUCTION TO PHYSIOLOGY (4). Prerequisites, Chemistry 11 and 21, Zoology 41, or equivalents. A general course in mammalian physiology with emphasis on the various organ systems and their interrelationships. Required of pharmacy students and available to other students by permission of the instructor. *Three lecture and two recitation hours a week, fall.* Perlmutt and staff.

---

[1] Joint Appointee.

94. INTRODUCTION TO PHYSIOLOGY (5). Prerequisites, Chemistry 11 and 21, Zoology 41, or equivalents. A course in basic human physiology of the various organ systems and their interrelationships with emphasis on clinical relevance and application. Required of physical therapy students and available to other students by permission of the instructor. *Four lecture and two laboratory-conference hours a week, fall.* Ennis.

100. INTRODUCTION TO BIOMEDICAL ENGINEERING (Biomedical Engineering-Biomedical Mathematics 101) (3). Prerequisites, Mathematics 32 and Zoology 11, or equivalents. A selective sampling in depth of applications of mathematical, physical, and engineering principles and methods to biomedical problems. *Fall, alternate years.* Coulter.

101. BIOCHEMISTRY–PHYSIOLOGY FOR DENTAL STUDENTS (6). Prerequisites, Chemistry 43, 61, 62 or equivalents. Restricted to dental students. *Fall and spring.* Whitsel and staff.

102. MAMMALIAN STRUCTURE AND FUNCTION (Physical Therapy 102) (5). Prerequisite, permission of the instructor. A general course in vertebrate physiology with emphasis on morphological and functional correlations suitable for graduate students with biology and chemistry background. *Fall.* Faust and staff.

111. BIOMEDICAL INSTRUMENTATION (Biomedical Engineering-Biomedical Mathematics 111) (3). Prerequisites, Mathematics 32 or equivalent, permission of the instructor. Designed for students who do not have and want experience in electronics. The fundamentals of circuit theory and practical circuit design are presented in the context of biological applications. This course includes a laboratory and individual student projects. *Spring.* Hsiao.

121. INTRODUCTION TO BIOMEDICAL DATA PROCESSING (Biomedical Engineering-Biomedical Mathematics 121) (3). Prerequisite, Computer Science or equivalent. This is an introduction to methods of automatic computation of special relevance to biomedical problems. Sampling theory, analog-to-digital conversion, digital filtering, will be explored in depth. *Fall, alternate years.* Downie.

131. INTRODUCTION TO BIOMATHEMATICS (Biomedical Engineering-Biomedical Mathematics 131) (3). Prerequisites, Mathematics 32 or equivalent. An introduction to the dynamic analysis of biological systems, including: differential equations of behavior, transient response, Fourier analysis and frequency response, and applications of the LaPlace transform in biology and medicine. *Spring, alternate years.* Downie.

140. CELL AND ORGAN SYSTEM PHYSIOLOGY (Neurobiology 140) (5). Prerequisites, Physiology 102 or Zoology 120 or equivalent and permission of the instructor. Principles of cell and organ system physiology given at an advanced level. *Spring.* Kuno and staff.

203. ADVANCED PHYSIOLOGY (Neurobiology 203) (5). Prerequisites, Physiology 140 or equivalent and permission of the Departmental Director of Graduate Studies. Selected topics in cellular and organ-system physiology covered in depth through lectures, seminars, laboratory exercises and demonstationn. *Fall.* Staff.

204. ADVANCED NEUROPHYSIOLOGY (3). Prerequisite, Zoology 120 or Physiology 140, or permission of the instructor. A course designed to provide detailed analyses of selected areas of neurophysiology such as synaptic transmission, sensory and motor systems, and higher integrative mechanisms. *Fall.* Farel and staff.

211. SPECIAL TOPICS IN PHYSIOLOGY (Neurobiology 211) (3-5). Prerequisite, permission of the instructor. Individually arranged programs of study in depth of selected topics. *Fall.* Staff.

212. SPECIAL TOPICS IN PHYSIOLOGY (Neurobiology 212) (3-5). Prerequisite, permission of the instructor. Individually arranged programs of study in depth of selected topics. *Spring.* Staff.

215. BIOLOGICAL CONTROL SYSTEMS (Biomedical Engineering-Biomedical Mathematics 211) (3). Prerequisite, Biomedical Engineering-Biomedical Mathematics 131 or Mathematics 124. A study of physiological control systems and mathematical tools used in their analysis. *Fall or spring, alternate years.* Downie.

220. SEMINAR IN PHYSIOLOGY (1). Prerequisite, permission of the Departmental Director of Graduate Studies. Weekly seminars emphasizing current literature. (This course is available to medical students as an elective.) *Fall.* Staff.

221. SEMINAR IN PHYSIOLOGY (1). Prerequisite, permission of the Departmental Director of Graduate Studies. Weekly seminars emphasizing current literature. (This course is available to medical students as an elective.) *Spring.* Staff.

225. NEURAL INFORMATION PROCESSING. (Biomedical Engineering-Biomedical Mathematics 221) (3). Prerequisites, Biomedical Engineering-Biomedical Mathematics 101 and Physiology 102 or equivalents. The nervous system is approached as a data processing network, the brain as a computer. *Spring, alternate years.* Coulter.

227. CURRENT TOPICS IN PHYSIOLOGY (Zoology 227) (3). Prerequisite, one introductory course in physiology. Lecture and seminar consideration of selected advanced aspects of physiology. Topics will vary from year to year; may be repeated for credit. *Spring.* Staff. (This course is available to medical students as an elective.)

290. SEMINAR IN NEUROBIOLOGY (Biochemistry 290, Neurobiology 290, Psychology 290, Pathology 290, Pharmacology 290) (3). Prerequisites, one graduate course in biological sciences and permission of the Associate Director for Training of the Neurobiology Program. An integrative consideration of selected topics and problems associated with the nervous system and behavior. (This course is available to medical students as an elective.) *Spring.* Neurobiology Program staff.

301, 302, 303. RESEARCH IN PHYSIOLOGY (3 to 10 each). Hours to be arranged with the professor. (This course is available to medical students as an elective.) *Fall, spring and summer.* Staff.

310. RESEARCH IN NEUROBIOLOGY (Biochemistry 310, Neurobiology 310, Psychology 310, Pathology 310, Pharmacology 310) (3 to 12). Hours to be arranged with the professor. (This course is available to medical students as an elective.) *Fall and spring.* Neurobiology Program staff.

393. MASTER'S THESIS (3 or more). *Fall and spring.* Staff.

394. DOCTORAL DISSERTATION (3 or more). *Fall and spring.* Staff.

400. GENERAL REGISTRATION (0).

Physiology Electives for Medical Students

401. PHYSIOLOGICAL MECHANISMS ASSOCIATED WITH PAIN (6). Prerequisites, Cell Biology and Neurobiology for students doing experimental work on animals; Introduction to Medicine and Medicine Clerkship for students wishing to use clinical material. Physiological and pathophysiological mechanisms related to pain are taken up in a combined experimental and discussion format. Considerable flexibility in the details is possible. Participants will be given the choice of becoming associated with an ongoing research project utilizing experimental animals and man or collecting material available from patients on the wards. The actual handling of data would be combined with directed reading. Students participating for longer periods may anticipate gathering sufficient material for credible student research reports. Possible topics include the relations between stimuli, pain, other sensation, and alterations in pain sensibility in patients with organic disease. Trevino, Perl.

404. RESEARCH ON EXCITABLE MEMBRANES (6). Prerequisite, admission to medical school. The student will participate in an on-going research project analyzing molecular mechanisms of excitability in muscle plasma membrane. The

study provides training in fundamental concepts in membrane excitability, fluorometric techniques in the measurement of excitation and the chemical analysis of biological membranes. One to two students for three or more elective periods (1/3 time each). McIlwain.

405. CARDIOVASCULAR CONTROL MECHANISM (6). Prerequisite, medical student. The course will be adjusted to each student's needs or interests. The topics covered may include nervous, chemical, thermal or mechanical systems which are involved in the control of the cardiovascular system. Depending on the student's desire, the course material may be designed to study certain clinical conditions such as shock, disseminated intravascular coagulation, myocardial infarction, hypertension, congestive heart failure or others. One to four students for one or more elective periods. Yonce.

406. THROMBOSIS RESEARCH (6). Prerequisite, completion of first year of medical school. Opportunity will be given to join in an on-going research project involving physiological and biochemical aspects of human blood coagulation with an emphasis on understanding the basis of hyper-coagulability. Possibility of continuation of project during a second consecutive period. One student for one or more elective periods. McDonagh.

407. SPECIAL TOPICS IN BIOMEDICAL ENGINEERING (3). Prerequisite, calculus. Individual instruction in applications of biomedical computing or medical electronics to biomedical problems. One to two students for one or more elective periods (1/2 time each). Coulter.

409. INTESTINAL ABSORPTION AND MALABSORPTION (3). Prerequisite, completion of second year of medical school. Mechanisms of intestinal absorption and malabsorption of water, electrolytes, and nutrients will be examined in depth by informal discussions, seminars, and experimental procedures to be selected by the participants. Three to six students for one or more elective periods (1/2 time). Faust.

410. RESEARCH ON MEMBRANE STRUCTURE AND FUNCTION (6). Prerequisite, completion of first year of medical school. The primary objective of the elective is to introduce the student to current biomedical techniques used to study the structure and function of membranes. In particular, the student will participate in studies concerned with the sarcoplasmic reticulum membrane of skeletal muscle. These include (1) isolation of sarcoplasmic reticulum by sucrose gradient centrifugation, (2) characterization of this cell organelle and derived membrane fractions by thin layer chromatography, polyacrylamide gel electrophoresis and by a variety of biochemical assays, (3) purification of the membrane components, and (4) reconstitution of a functional membrane from the purified sarcoplasmic reticulum proteins and lipids. *One student for one or more elective periods.* Meissner.

GRADUATE SEMESTER COURSES available to medical students. See course numbers: 203, 204, 211, 212, 220, 221, 227, 290, 301, 302, 303, 310.

DEPARTMENT OF PSYCHIATRY

Professors: W. E. Bakewell, Jr., M. G. Clarke, T. E. Curtis, J. W. Edgerton, J. A. Ewing, S. L. Halleck, W. G. Hollister, M. A. Lipton, M. L. Miller, P. A. Obrist, A. J. Prange, Jr., E. Schopler, C. E. Smith

Associate Professors: J. I. Boswell, G. R. Breese, M. D. Flair, W. H. Friedman, M. Gispert, F. T. Miller, Mario Perez-Res, R. J. Reichler, D. K. Routh, J. J. Soltys, R. F. Spencer, D. S. Werman, D. M. Wood

Assistant Professors: J. J. Andresen, B. A. Baldwin, L. Behar, P. Boekelheide, A. Callaway, S. B. Coley, B. Cooper, F. Driver, A. J. Faily, R. Falk, A. M. Feinberg, R. Florenzano, J. R. Frazier, L. D. Grant, E. Hilberman, B. E. James, N. M. Johnson, J. T. Konanc, C. Lewis, H. P. Lineberger, M. B. Liptzin, V. Long, L. Marcus, P. A. Martin, Jr., N. A. Mazade, G. Mesibov, K. C. Mills, C. S. Newmark,

R. L. Paine, Jr., R. S. Pinkerton, D. Raft, S. Sanders, J. Scagnelli, R. F. Schmitt, C. Schroeder, L. P. Semrau, B. Stabler, C. Taylor, T. C. Toomey, L. S. Tucker, L. E. Ussery, R. A. Wyrick

Instructors: R. Hunter, W. Hunter, A. H. Spitznagel

Clinical Professors: E. E. Baugham, W. G. Dahlstrom, W. S. Flash, M. D. Galinsky, G. C. Ham, S. C. Jain, W. LaBarre, M. Schaefer, H. L. Smith, L. J. Thompson, G. S. Welsh, D. A. Young

Clinical Associate Professors: D. F. Freeman, R. L. Garrard, J. D. McRee, T. Maloney, J. T. Monroe, J. W. Osberg, R. L. Rollins, S. Schroeder, J. E. Somers, A. G. Tolley, C. R. Vernon, P. A. Walker, R. H. Whitener, I. C. Wilson, N. P. Zarzar

Clinical Assistant Professors: D. Carmichael, J. R. Davidson, W. F. Eastman, T. M. Haizlip, G. W. Hamby, M. B. Hresko, B. S. Lipton, M. N. McLeod, C. McRee, M. Rood, M. Runquist, B. Royal, M. D. Schumann, W. E. Thomas, F. A. Vinson, M. H. Warrick, R. H. Weinstein, D. E. Widmann

Clinical Instructors: J. L. Berryhill, R. Felix, C. F. Long, S. K. Meginnis

Clinical Lecturers: B. Ball, B. F. Corder, N. Mengel, J. W. Morgan

Adjunct Assistant Professors: B. B. Harris, J. L. Sloan

Adjunct Lecturer: G. Barnes

Clinical Clerkship in Psychiatry

Third-year students have a six-week clerkship in psychiatry. For this experience they are assigned to one of the teaching services of the Department of Psychiatry; assignments are currently made to the Orange-Person-Chatham Mental Health Center, the Dorothea Dix Hospital and the North Carolina Memorial Hospital, with its inpatient, outpatient and consultation-liaison divisions.

The training programs experienced by the students vary somewhat in the different clinical settings but are alike in essential aspects. Emphasis in each is on learning through closely supervised work with patients. Additional experiences include didactic seminars, case conferences and supervised reading. Attention is given to integration of the pre-clinical education in psychiatry with the clinical situation.

The student as a result of this work should acquire increased poise in dealing with the psychological aspects of his patients. He can be expected to learn how the patient reveals himself psychologically, that is, how to recognize and elicit what he needs to know in order to act on the patients behalf. He should acquire some knowledge of the typical presenting features of psychological problems and certain principles of management of these difficulties. To this end he is also instructed in the use of the various treatment resources available in modern psychiatry including medications, hospitalization and the utilization of the relationship between doctor and patient.

Electives

401. OUTPATIENT PSYCHIATRY (6). Prerequisite, third year psychiatry clerkship. Various clinical experiences (screening interviews, diagnostic conferences, psychotherapy, etc.) under supervision are offered. This elective is sufficiently flexible to allow the student to pursue particular interests, i.e., supervised readings, student health, community psychiatry, prison psychiatry, etc. Werman, Young, Ewing and staff.

403. CHILD PSYCHIATRY (6). Prerequisite, admission to medical school. An outpatient experience in Child Psychiatry is offered. About half the time is spent in closely-supervised outpatient child and family diagnostic work, where students learn interview and play-therapy techniques and participate in the physical and psychological evaluation of children, adolescents and their families. Additional experiences include a weekly child psychiatry treatment-psychotherapy review conference, selected readings and tutorial sessions with the faculty, a half day per week in child psychiatry consultation to a pediatric outpatient clinic (at Wake Memorial Hospital in Raleigh), half day per week in the student mental health program at the UNC student infirmary, and orientations to the local child psychiatry inpatient unit and the local

developmental evaluation clinic. Trips to the Rocky Mount Mental Health Center (where we consult extensively) can be arranged. This rotation is particularly germane to students planning careers in pediatrics or family medicine. Students with special interests may work at individualized rotations with the child psychiatry faculty. All students are strongly urged to talk personally with Dr. Lineberger a month before starting the rotation. Boswell, Gispert, Lineberger, McRee, Schmitt, Tucker and staff.

404. CONSULTATION PSYCHIATRY (6). Prerequisite, third year psychiatry clerkship. During this clerkship teaching is focused on psychological complications of medical and surgical illness. Patients are seen with organic diseases affecting the mental apparatus as well as the classical "pychosomatic" entities and frank psychiatric disorders in the hospital and outpatient clinics. Initially the students' consultation interviews are conducted under the direct supervision of a member of the attending or resident staff of the consultation service. There will be opportunities to follow some patients during their hospital stay or occasional transfer to South Wing. Students will attend ward rounds, one-way screen interview demonstrations and literature conferences in addition to supervision with a member of the attending staff once a week. They will have opportunities to learn techniques of psychological testing and interpretation. Students may elect to work in the Psychosomatic Clinic or Pain Clinic. Variations in the above can be arranged by consultation with the course faculty. Spencer, Raft, Toomey, Driver, Hilberman and staff.

405. COMMUNITY PSYCHIATRY. No prerequisites. This experience is a part-time elective which involves spending one or two days per week in one of the Community Psychiatry Centers affiliated with the Community Psychiatry section of the Department of Psychiatry. The experience offers an opportunity to become acquainted with the type of patient and practice seen in the community and provides familiarity with community resources and agencies dealing with these problems. Since it is a part-time elective it can be combined with other elective programs in psychiatry. Hollister, Edgerton and staff.

406. CLINICAL AND RESEARCH ASPECTS OF ALCOHOL AND DRUG USE AND ABUSE (6). No prerequisites. Students spend one third to one half of their time involved in clinical and research studies in alcoholism and sedative drug abuse. They meet private and staff patients with Dr. Ewing on the outpatient and inpatient services. By special arrangement, they can work up patients who attend the special weekly alcoholism clinics. They study patients in the general hospital who have a primary diagnosis of alcoholism and/or sedative drug abuse. Students visit the alcoholic rehabilitation center and similar treatment facilities in the area. They are exposed to ongoing research approaches including pharmacological, animal studies, psychophysiology and epidemiology. Students seeking a longer assignment to this elective will have the opportunity to work in some of these research studies. Finally, the student will be guided to a special reading program for which adequate time is made available. Ewing and staff.

407. CORRECTIONAL PSYCHIATRY (6). Prerequisite, third year psychiatry clerkship. Students may elect a full or part-time experience in Raleigh, North Carolina. Students will attend regularly scheduled diagnostic conferences and treatment team meetings. They will take part in the examination and treatment of mentally disordered adult and youthful offenders under faculty supervision. Students will have unique opportunities to become familiar with the health problems of a disadvantaged population and to participate in behavioral research. A list of suggested readings will be provided. This elective may be taken on a part-time basis in combination with other psychiatric electives such as PSYI 401. Funds are available for travel expenses to and from Raleigh. Smith, Carter, Felix and Kaye.

410. PSYCHOPHYSIOLOGICAL RESEARCH (6). Prerequisite, first year of medical school. A variety of research topics are available for either investigative efforts or as a library project. The primary theme will concern the effects of stress on cardiovascular activity and the relationship to pathological states. Of particular

interest is essential hypertension. The research can either involve dogs, normal humans or humans with a labile blood pressure. This elective can be offered as part time over a semester and can involve any combination of time devoted to laboratory or library work. Obrist.

411. PARENT-CHILD INTERACTION AND CHILD PSYCHOPATHOLOGY. Prerequisite, first year of medical school. Students will observe and learn about total patient care. They will observe and discuss the physical and psychiatric examination. They will learn about interview and therapy techniques with disturbed children and families, specifically aimed at the central diagnostic problem. They will observe parent counseling and participation in the ongoing research of parent-child interaction. Relevant reading will be assigned regarding child psychiatry and evaluation and treatment. Students will attend staff and case conferences and will have supervision with a staff member. A clinical or theoretical paper will be required. This rotation is useful for those planning careers in pediatrics or family medicine. Sanders.

413. FAMILY PSYCHOTHERAPY. Prerequisite, first year of medical school. Continuing seminar on Family Study and Family Psychotherapy, two hours every week. Observations and clinical experiences with conferences and supervision (1) for diagnosis of families–Tuesday mornings and (2) for treatment–as scheduled throughout the week. Family work is in a multidisciplinary setting involving experience with multidisciplinary team conferences and co-therapists. Students study their own nuclear and extended families under faculty guidance. Participation must be for a minimum of one academic year, ideally for two. Curtis, Eastman, Feinberg, Hunter and Long.

415. MENTAL HEALTH CENTER. No prerequisites. A planned orientation course to the variety of resources providing services to the geographical population: social services, public health, vocational rehabilitation, community medicine and community mental health; to be conducted by the Orange-Person-Chatham Mental Health Center staff. This is followed by individualized direct experiences in one or more of the following areas under tutorial supervision: outpatient mental health services, community agency consultations, drug abuse program consultation, care systems program development, state hospital consultation-liaison, alcholism services, geriatic services. Each block may be full or part time, and will be planned in consultation with the student(s) electing the course. Feinberg, Coley, Pinkerton, Martin and staff.

416. CLINICAL HYPNOSIS. Prerequisite, first year of medical school. A seminar designed to teach the essentials of clinical hypnosis. One lecture on history, three lectures on theory, twelve lectures on practice including induction techniques, hypoanesthesia and pain, relaxation techniques and anxiety control, resistances, relationship building, indications for use, restructions, dangers, myths and misconceptions, uses in Psychiatry and Medicine. Relevant readings and a supervised application of hypnosis with a patient will be assigned. Sanders.

417. STUDENT MENTAL HEALTH. Prerequisite, psychiatry clerkship. A three month elective providing a closely supervised opportunity to work with college students on an outpatient and limited inpatient basis. Emphasis will be on the diagnostic interview and brief goal-directed psychotherapy and/or crisis intervention in individual or group psychotherapy. According to interests, may work with staff in community outreach programs–e.g., dormitory relationships, Dean's office, chaplaincy, minority or foreign student problems, human sexuality (peer counseling), sports medicine. In the Health Service–premarital and marital counseling; contraceptive clinic, abortion counseling; psychosomatic aspects of illness. Liptzin, Boekelheide and staff.

DEPARTMENT OF RADIOLOGY

Professors: James H. Scatliff *(Chairman),* Charles A. Bream (Director, Diagnostic Radiology), Gustavo S. Montana (Director, Radiation Therapy), Edward V. Staab (Director, Nuclear Medicine)

Associate Professors: Richard L. Clark, Faustino C. Guinto, Jr., George M. Himadi, R. Eugene Johnston, James C. Reed

Assistant Professors: Joseph J. Bonanno[1], David J. Delany, Margaret B. Dillard, M. Reza Habibian[2], Paul F. Jaques, Janice C. Keene (Radiological Sciences), Richard J. Kowalsky (Radiopharmacy), H. Allen Matthews[3], Sidney J. Pion, Edward E. Rogoff, William L. Saylor (Radiation Physics), Michael W. Stannard[4], Rick I. Suberman, Frank M. Volberg

Instructors: William M. Russell, Michael L. Stewart[5], Robert L. Thorpe, David B. Washburn (Radiation Physics)

Lecturer: Gilbert W. Turner

Research Associates: Francis B. de Friess (Physics), C. Leon Partain (Nuclear Medicine)

Adjunct Assistant Professor: James A. Roseboro (Radiation Physics)[6]

Adjunct Associate Professor: Stephen M. Pizer (Nuclear Physics)[7]

Clinical Associate Professors: Elbert D. Apple, Owen W. Doyle, Elmer A. Lodmell, Donald M. Monson, Ernest B. Spangler, William H. Sprunt III, John F. Sherrill, Jr.

Clinical Assistant Professors: Daniel E. Clark, Walter E. Deyton, Otis N. Fisher, Julius A. Green, Albert M. Jenkins, Morris A. Jones, George M. Paddison, George H. Pierson, James F. Reinhardt, Guy M. Schlaseman

Fellow: John R. Perry (Nuclear Medicine)

The training in radiology is designed to provide the student with an understanding of the value and limitations of radiologic methods as they pertain to the practice of general medicine. Instruction is given in all four years. After an introduction to basic radiologic anatomy and principles in the first year, the student progresses to the study of abnormal radiographic shadows and their correlation with gross pathology in the second year. During the clinical years, radiologic teaching is integrated with the courses in medicine, surgery, pediatrics, gynecology and obstetrics. The student may elect to devote full time for one month to radiology. Participation in the third and fourth year electives requires completion of the first two years of medical school.

First Year

Correlative lectures in anatomy and radiology are given. Emphasis is placed on the visualization and understanding of anatomical parts and their function as seen by radiologic methods, including plain radiography, contrast materials studies and cine fluorography. *Four hours.* Clark, Scatliff.

Second Year

RADIOLOGIC PATHOLOGY. Gross pathology as revealed by the roentgen ray is closely correlated with the exercises in the pathology laboratory. The value of diagnostic roentgenology as a bridge between the study of gross pathology and the clinical study of the patient is stressed. *One hour a week, second quarter.* Scatliff and staff.

---

[1] Resigned December 31, 1975.
[2] Leave of absence, November 1, 1975.
[3] Resigned June 30, 1975.
[4] Visiting apppintment terminates January 31, 1976.
[5] Visiting appointment terminated September 30, 1975.
[6] Primary appointment, School of Public Health.
[7] Primary appointment, UNC Department of Computer Science.

With the institution of CORE Curriculum, members of the department teach the entire second year class. Different members of the staff are involved, i.e., when the nervous system is being presented, the neuroradiologists will participate; when the cardiovascular system is presented, the vascular radiologist will participate. The value of radiology as a bridge between preclinical and clinical medicine is stressed. *Eight hours per week.* Scatliff and staff.

INTRODUCTION TO CLINICAL ONCOLOGY & RADIOBIOLOGY. This course is designed to acquaint the students with fundamental concepts in the diagnosis, treatment and prognosis of patients with certain malignant diseases. The importance of an interdisciplinary approach (surgery, chemotherapy and radiotherapy) used for dealing with malignant diseases is stressed. Basic concepts regarding the effects of irradiation upon living tissues are presented. The course is given in the form of classroom lectures, laboratories and the presentation of patients who have received or are undergoing treatment for malignant disease. Montana and staff.

Third and Fourth Year

MEDICAL RADIOLOGY. Radiology rounds are conducted with the Department of Medicine. The teaching conference is directed chiefly toward differential diagnoses, discussions of treatment, the selection of further diagnostic procedures and patient management. *Three hours daily.* Scatliff and staff.

RADIOLOGY ELECTIVES. Prerequisite, completion of two years of medical school. Arrangements may be made through the Department Chairman or Director of Division offering elective. Electives are full time and for a minimum of one month.

401. GENERAL RADIOLOGY. The student will spend full time in the department with the attending and resident staff in various activities, including film interpretation, fluoroscopic procedures, angiographic studies, and conferences. Rotation through the radiotherapy division and nuclear medicine laboratory will also be possible. Scatliff and staff.

402. EXTRAMURAL RADIOLOGY PRECEPTORSHIPS. Preceptorships in Radiology Departments of affiliated hospitals for one month can be arranged through the Chairman of the Department of Radiology of the Medical School.

403. PEDIATRIC RADIOLOGY. Conferences will be held and practical work carried out in diagnostic roentgenology as applied to pediatric problems. Scatliff and staff.

404. NEURORADIOLOGY. Conferences will be held and practical work in diagnositc roentgenology as applied to neurological and neurosurgical diseases will be carried out. Guinto.

405. DISEASES OF THE CHEST. Clinical and radiologic correlation of chest diseases is carried out daily by means of viewbox analysis, radiology conferences and seminars. Himadi, Delany, Bream, Reed.

406. GASTROINTESTINAL RADIOLOGY. An introduction to gastrointestinal fluoroscopic technique and the cine flurography will be made. Gastrointestinal film interpretation and correlation with clinical findings will be carried out. Bream, Himadi.

407. CARDIAC RADIOLOGY. The combined staffs of cardiology, thoracic surgery and radiology participate in problem case study, discussion and treatment planning. Particular emphasis is given to the selection of patients for corrective surgical procedures. *One hour a week throughout the year.* Delany.

408. NUCLEAR MEDICINE. Prerequisite, completion of General Radiology Elective (401). Instruction will be given in the routine techniques of clinical nuclear medicine. This will include interpretation of the more common imaging procedures. The student will participate actively in all nuclear medicine conferences, particularly

those correlating the nuclear medicine and radiographic studies. The student will be expected to complete a short clinical investigation project which can be selected in the area of his own interest. Instruction and experience in the techniques of diagnostic ultrasonography can be added at the student's discretion. Staab and staff.

409. RADIATION THERAPY CLINICAL CLERKSHIP. Clinical clerkships are offered in Radiation Therapy to provide intensive contact with the use of radiation in the management of cancer. Patient care, physical diagnosis and the natural history of malignant disease will be emphasized. Students will be accepted for a minimum of one month, the maximum length to be individually determined. Limited to two students at a time. Montana and staff.

410. CLINICAL ONCOLOGY ELECTIVE. Serves to provide an opportunity for clinical experience in and study of patients with non-hematologic and non-gynecologic malignancies, including methods of diagnosis and evaluation of extent of disease, modalities of paliative therapy, and the overall management of patients with curable and incurable cancer. *Two hours weekly.* Radiotherapy staff and members of Surgery staff.

411. FUNDAMENTALS OF INVESTIGATIVE RADIOLOGY (3-6). Prerequisite, completion of second year of medical school. Under the close supervision of a faculty advisor the student will be encouraged to initiate and complete a limited research project within the broad field of diagnostic radiologic investigation. Although clinical radiologic research projects will be permitted in special circumstances, the student's elective experience should emphasize the application of investigative radiologic techniques to the study of animal models of human disease. Microangiography or other microradiographic studies of excised organs and *in vivo* angiography or other radiologic procedures in laboratory animals will be encouraged. Radiologic-pathologic correlation will be emphasized. Appropriate technical assistance will be provided on a part-time basis. Clark, Scatliff.

Course for Undergraduate Students

90. MEDICAL RADIATION PHYSICS. For students enrolled in the Schools of Radiation Therapy and Nuclear Medicine Technology; others with consent of the instructor.

This course satisfies the requirements in radiation physics instruction set forth by the A.M.A. for Radiation Therapy and Nuclear Medicine Technology students. For students in other disciplines, the course will serve as an introduction to radiation physics with strong emphasis on medical applications. *Three lecture periods or two lecture periods and one laboratory period per week.* Johnston, Saylor.

DEPARTMENT OF SURGERY

Professors: Colin G. Thomas, Jr. *(Chairman),* Joseph A. Buckwalter (General), Paul L. Bunce (Urology), H. Robert Brashear (Orthopedics), Norman A. Coulter (Biomedical Engineering and Mathematics), Gordon S. Dugger (Neurosurgery), Newton D. Fischer (Otolaryngology), Floyd A. Fried (Urology), George Johnson, Jr. (General-Vascular-Trauma), James F. Newsone (General), R. Beverly Raney (Orthopedics), Roy V. Talmage (Orthopedics), Benson R. Wilcox (Cardiothoracic), Frank C. Wilson (Orthopedics)

Associate Professors: A. Griswold Bevin (Plastic and Reconstructive), W. Paul Biggers (Otolaryngology), Stanley R. Mandel (General-Vascular-Trauma-Transplantation), Lockert B. Mason (General), Gordon F. Murray (Cardiothoracic), Hubert C. Patterson (General), Edwin T. Preston (Orthopedics), Herbert J. Proctor (General-Vascular-Trauma), Peter J. K. Starek (Cardiothoracic), W. Grady Thomas (Audiology)

Assistant Professors: Timir Banerjee (Neurosurgery), William H. Bowers (Orthopedics), Robert D. Croom, III (General), David E. Downie (Biomedical Engineering and Mathematics), Charles A. Herbst, Jr. (General), Henry S. Hsiao (Biomedical Engineering and Mathematics), Noel B. McDevitt (General-Vascular-Trauma), Jiri Prazma (Otolaryngology), Timothy N. Taft (Orthopedics), Robert W. Winslow (Plastic and Reconstructive), Thomas J. Wood (Audiology), Richard N. Young (Audiology)
Instructor: Elizabeth O. Robertson (Audiology)

Appointments in Department of Surgery with Primary Appointment in Other Departments

James S. Hutcheson–Instructor (Bioengineering and Psychiatry)
Jerry E. Patterson–Assistant Professor in Oral Surgery
Donald W. Warren–Associate Professor of Preventive Dentistry, and Department of Surgery (Plastic Surgery)
Ernest W. Small–Professor and Chairman (Oral Surgery)

During the sophomore year students will be presented with methods of physical examination as related to surgical diseases. These demonstrations will be carried out for the most part with small groups in order to allow individual participation.

During the junior year there will be a series of discussions and demonstrations in which an effort will be made to correlate with clinical disease the approaches learned in those sciences basic to surgery and to which it is ancillary. These will consist of sessions in which the entire group will participate. In a methodical way all of the body systems along with the common diseases that affect them will be considered.

Smaller groups of students will serve in rotation for a period of several weeks on the surgical service in the hospital. Each student will be assigned patients as they are admitted to the hospital and will act in the capacity of ward clerk. He will be responsible for the evaluation of the patient and will be expected to assist the resident and attending staff in the overall management of his patient. Each day a member of the attending staff will direct discussions in seminar form of particular surgical problems as they appear on the service. The student will also receive more informal instructions from the resident house staff during the day in the form of demonstrations and discussions. Time will be available for the study of the patient by the student both in conference and in the library.

During the senior year a student is afforded an opportunity to select one or more of the elective programs offered by members as well as the various divisions of the Department. These electives are designed to complement the junior year clinical clerkship offering an increase in responsibility as well as directed patient study (Surgery 401-416).

Second Year

PRINCIPLES OF PHYSICAL DIAGNOSIS. The teaching of physical diagnosis in the surgical patient is incorporated within the course in introductory medicine. Individual instruction is provided with emphasis placed upon techniques of general examination as well as those peculiar to the surgical specialities. *Ten hours, second and third quarters.* Thomas and staff.

Third Year

CLINICAL SURGERY. During the junior year students spend 12 weeks in seriatim in the study of assigned clinical cases under the direct supervision of instructors. General surgery and all of the surgical specialties are covered in this period and the Life Support Skills course is scheduled in conjunction with the Surgery clerkship. Both inpatient and outpatient facilities at the North Carolina Memorial Hospital are used. The students serve as clerks on the various surgical

services with their work being carefully supervised and evaluated by members of the resident and attending staff. This experience is complemented by lectures, seminars, conferences, small group discussions and rounds. *Twelve weeks.* Thomas and staff.

Surgery Electives for Third Year Medical Students

301. ELECTIVE CLERKSHIP IN SURGERY–3rd Year. Prerequisite, two years of medical school. This elective provides an opportunity for individual study of selected patients with careful supervision by the attending and house staff. The elective will complement as well as enrich the required junior clerkship in Surgery. *0-2-3 students each elective period.* Thomas and staff.

Surgery Electives for Fourth Year Medical Students

Prerequisite, completion of surgery clerkship.

401. ACTING INTERNSHIP–GENERAL SURGERY–SURGERY A (6). *One student each elective period.* Thomas, Newsome, Patterson, Buckwalter, Croom, Herbst.

402. EMERGENCY AND OUTPATIENT SURGERY (6). *One student each elective period.* Proctor, Croom.

403. ACTING INTERNSHIP–VASCULAR SURGERY (6). *One student each elective period.* Johnson, Mandel, McDevitt.

404. BASIC SURGICAL CONCEPTS. *Three students each elective period.* Mandel, McDevitt, Johnson.

405. ACTING INTERNSHIP–GENERAL AND TRAUMATIC SURGERY (6). *One student each elective period.* Proctor.

406. PRECEPTORSHIP IN SURGERY AND TRANSPLANTATION (6). *One student each elective period.* Mandel.

408. ACTING INTERNSHIP, CENTRALIZED SURGICAL SERVICES, DOROTHEA DIX. *Two students each elective period.* Buckwalter and staff.

409. ACTING INTERNSHIP IN SURGERY (NEW HANOVER MEMORIAL HOSPITAL, WILMINGTON, N.C.). *Two students each elective period.* Manson and associates.

410. CLINICAL ONCOLOGY (6). *Two students each elective period.* Newsome, Nelsen.

411. ACTING INTERNSHIP, MEDICAL AND SURGICAL CARE OF THE YOUNG. *One-two students each elective period.* Taylor, Patterson, Infirmary Staff.

412. ACTING INTERNSHIP IN GENERAL, VASCULAR, AND THORACIC SURGERY (General Hospital of Virginia Beach, Virginia Beach, Va.). *One student each elective period.* Clarke, Earley, Morris.

413. ACTING INTERNSHIP IN GENERAL AND THORACIC SURGERY (Watts Hospital, Durham, N.C.). *One-three students each elective period.* Davis and staff.

414. CLINICAL SURGERY, VETERANS HOSPITAL, FAYETTEVILLE. *Two students each elective period.* Killam and staff.

420. ACTING INTERNSHIP IN CARDIO-THORACIC SURGERY (6). *Maximum one student each elective period.* Wilcox, Starek, Murray.

430. ACTING INTERNSHIP IN NEUROSURGERY (6). *Maximum one student each elective period.* Dugger and staff.

440. ACTING INTERNSHIP IN ORTHOPEDIC SURGERY, NORTH CAROLINA MEMORIAL HOSPITAL (6). *Maximum one student each elective period.* Wilson, Brashear, Preston, Bowers, Taft, Raney and staff.

441. ACTING INTERNSHIP IN ORTHOPEDIC SURGERY, WAKE MEMORIAL (6). *One-two students each elective period.* Dameron and staff.

442. PRECEPTEESHIP IN ORTHOPEDIC SURGERY (6). *One-three students each elective period.* Wilson, Brashear, Preston, Bowers, Taft, Raney.

443. REHABILITATION. *One-two students each elective period.* Preston and staff.

444. PRECEPTEESHIP IN ORTHOPEDIC RESEARCH. *One-three students each elective period.* Talmage and staff.

445. PEDIATRIC ORTHOPEDICS (6). *One-two students each elective period.* Wilson, Brashear, Preston, Bowers, Taft, Raney and staff.

446. SPORTS MEDICINE. *Two students each elective period.* Taft, DeWalt and staff.

450. ACTING INTERNSHIP IN OTOLARYNGOLOGY (6). *Two students each elective period.* Fischer, Biggers, Browder and ENT House Staff.

451. ACTING INTERNSHIP IN OPHTHALMOLOGY AND OTOLARYNGOLOGY (Ophthalmology 451). *Four students each elective period.* Fischer, Hale, Biggers, Browder and ENT House Staff.

452. RESEARCH EXPERIENCE IN PHYSIOLOGIC ACOUSTICS. *Two students each elective period.* Prazma, Thomas, Chen.

453. COMMUNITY PRACTICE OTOLARYNGOLOGY (Raleigh, N.C.). *One student each elective period.* Sparrow, Majors, Hattaway, Garrabrant.

460. PRINCIPLES OF RECONSTRUCTIVE SURGERY (6). *One-two students each elective period.* Bevin.

461. REHABILITATION OF THE HAND (6). *One-two students each elective period.* Bevin.

462. INTENSIVE CARE OF BURNED PATIENTS (6). *One-two students each elective period.* Bevin and staff.

470. ACTING INTERNSHIP IN UROLOGY. *Maximum one student each elective period.* Fried, Bunce, Cole.

471. BASIC CLINICAL UROLOGY. *Maximum one student each elective period.* Fried, Bunce, Cole.

472. UROGRAPHIC INTERPRETATIONS. *Four-six students each elective period.* Fried and Pion.

473. SEMINAR: SPECIAL TOPICS IN UROLOGY. *Three students each elective period.* Fried, Bunce, Cole.

474. RESEARCH IN UROLOGY. *Two students each elective period.* Fried, Bunce, Cole, Avis.

BMME 231. TECHNOLOGY IN HEALTH CARE DELIVERY. *One-six students each elective period.* Coulter, Downie, Hsiao.

Research in Surgery

Carefully selected students carry out individual research problems and assist members of the staff.

Conferences

Senior students while on the surgical service attend rounds and weekly conferences and seminars held jointly with the surgical house staff and the surgical attending staff. They also attend the daily preoperative conferences at which time the problems presented by patients to be operated upon the following day are discussed.

CURRICULUM IN BIOMEDICAL ENGINEERING AND MATHEMATICS

Professors: Charles R. Baker (Statistics), N. A. Coulter, Jr. (Bioengineering and Biomathematics), Jan J. Hermans (Biochemistry), Roy S. Kuebler (Biostatistics), W. R. Mann (Mathematics), A. T. Miller, Jr. (Physiology), B. R. Wilcox (Surgery)

Associate Professors: Richard Johnston (Radiology), P. A. Lachenbruch (Biostatistics), L. R. Yonce (Physiology), Paul Shinkman (Psychology), C. F. Starmer (Bioengineering), D. M. Wood (Psychiatry), R. L. Pimmel (Medicine)

Adjunct Associate Professors: George S. Malindzak

Assistant Professors: David D. Downie (Bioengineering), Michael D. Feezor (Bioengineering), Henry S. Hsiao (Bioengineering), Kenneth Haslam (Anesthesiology), Lawrence Kupper (Biostatistics)

Instructors: E. R. Lappi (Biomedical Computing)

Research Associate: Carol Lucas

Research Trainees: Francis Chan, Will Daland, David Farrar, Janie Fouke, James Fullton, Jr., Elizabeth Hamilton, Carol Haynes, Joan Hrenko, Allen Kasey, George Konstantinous, Lynn Kinch, Ching-Man Kwan, Edgar B. Lavender, Patricia Millington, Robert Pearlstein, Miles Philbeck, Robert Schreiner, Charles R. Starrett, Reda Teicher, James Wood, Charles Woodley

Biomedical Engineering and Mathematics is a new field stressing the application of engineering techniques, mathematical analysis, and biomedical computing to medical problems. This curriculum offers graduate education in this field leading to the Master of Science and Doctor of Philosophy degrees. Arrangements may be made for qualified medical students to work for a joint M.D.-Ph.D. degree under this program.

Students enter this program with a wide variety of backgrounds—some in engineering or physical science, some in mathematics, some in biological science. Curricula are tailored to fit the needs and develop the potentials of individual students. All students take the core curriculum (described below)—with exceptions if they have had equivalent courses elsewhere. In addition, courses in biostatistics, computer science, physiology, and mathematics or engineering provide a well rounded background of knowledge and skills.

The program is distinctive in that it is one of the few in this field that is physically and administratively situated in a medical school. This has the advantage of placing students in close contact with a medical staff, clinical problems, and ongoing medical research, providing many unique opportunities to apply their talents in a project-oriented atmosphere. The Alexander F. Fortune Biomedical Computation Center and other computing facilities are also available. Graduates of this program are well qualified to apply engineering, mathematics, and biomedical computing in hospitals, clinics, private research laboratories, government laboratories, and other institutions involved in health care delivery.

Courses for Graduates and Advanced Undergraduates

101. INTRODUCTION TO BIOMEDICAL ENGINEERING (3). Prerequisites, Mathematics 32 and Zoology 11, or equivalents. Topics included are dimensional analysis in biology, biomechanics, biorheology, bioacoustics, membrane transport, bioelectricity, sensory transducers, biological control systems, and neural information processing. Coulter.

111. BIOMEDICAL INSTRUMENTATION (3). Prerequisites, Mathematics 32 or equivalent, permission of the instructor. Designed for students who do not have and want experience in electronics. The fundamentals of circuit theory and practical circuit design are presented in the context of biological applications. This course includes a laboratory and individual student projects. Hsiao.

121. INTRODUCTION TO BIOMEDICAL DATA PROCESSING (3). Prerequisite, Computer Science 16 or equivalent. This is an introduction to methods of automatic computation of special relevance to biomedical problems. Sampling

theory, analog-to-digital conversion, digital fitering, will be explored to depth. Downie.

131. INTRODUCTION TO BIOMATHEMATICS (3). Prerequisite, Mathematics 32 or equivalent. An introduction to the dynamic analysis of biological systems, including: differential equations of behavior, transient response, Fourier analysis and frequency response, and applications of the LaPlace transform in biology and medicine. Downie.

Courses for Graduates

201. ADVANCED BIOMEDICAL INSTRUMENTATION (3). Prerequisite, BMME 111 or permission of the instructor. Topics include analysis of medical instrumentation with emphasis on pressure, flow, bioelectric, and ultrasonic transducers. This course includes a laboratory and weekly demonstrations of clinical instruments in the hospital. Students are given the opportunity to design and fabricate original devices. Hsiao.

211. BIOLOGICAL CONTROL SYSTEMS (3). Prerequisite, Biomedical Engineering-Biomedical Mathematics 131 or Mathematics 124. This is a study of physiological control systems and mathematical tools used in their analysis. Downie.

221. NEURAL INFORMATION PROCESSING (3). Prerequisites, Biomedical Engineering-Biomedical Mathematics 101 and Physiology 140 or equivalents. This approaches the nervous system as a data processing network, the brain as the computer for a homeostat. Coulter.

231. SPECIAL TOPICS. Hours to be arranged. Prerequisite, permission of the instructor. Special library and/or laboratory work on an individual basis on specific problems in biomedical engineering and biomedical mathematics. Direction of students will be on a tutorial basis, and subject matter will be selected on the basis of individual needs. Staff.

241. SEMINAR. Prerequisite, none. Regular seminars on topics of current interest given by staff members, visiting professors, and advanced students. Attendance required of all students in the biomedical engineering-biomedical mathematics program. Staff.

301. ADVANCED TOPICS IN BIOMEDICAL ENGINEERING AND BIOMEDICAL MATHEMATICS. Prerequisite, Biomedical Engineering-Biomedical Mathematics 101 or equivalent. Advanced topics in the field will be covered in depth from one of the following areas: Bioelectricity, Biomechanics, Biorheology, Biological Thermodynamics, Bioacoustics, Biomathematical Models, Sensory Transducers. Staff.

311. RESEARCH IN BIOMEDICAL ENGINEERING AND BIOMEDICAL MATHEMATICS. Hours to be arranged. Prerequisite, permission of the instructor. Staff.

394. DOCTORAL DISSERTATION. Staff.

400. GENERAL REGISTRATION.

CURRICULUM IN GENETICS

Professors: John B. Graham (Pathology), Frederick J. de Serres (Pathology), Bruce K. Eckland (Sociology), Robert C. Elston (Biostatistics), Edward Glassman (Biochemistry), Harry Gooder (Bacteriology), Geoffrey Haughton (Bacteriology), H. Neil Kirkman (Pediatrics), John C. Lucchesi (Zoology)

Associate Professors: Edward G. Barry (Botany), Kenneth F. Bott (Bacteriology), Marshall H. Edgell (Bacteriology), Clyde A. Hutchison (Bacteriology), William S. Pollitzer (Anatomy), Michael R. Swift (Medicine)

Assistant Professors: Bruce S. Baker (Zoology), Charles H. Langley (Biostatistics), John H. Newbold (Bacteriology)
Instructor: Howard M. Reisner (Pathology and Bacteriology)
Postdoctoral Fellows: Charles E. Boklage, Roselyn V. Little, Richard L. Roehrdanz, Evan V. Siegel
Predoctoral Students: Richard A. Banks, John B. Belote, Martha M. Brown, Kathleen D. Bucher, Janne H. Cannon, Cathleen R. Carlin, David L. Covington, Christine D. de Serres, Lynn R. Goldin, Ralph C. Harvey, Mary B. Hughes, Howard J. Katz, David H. Lamb, Michael A. Lynes, Connie H. Miller, Charles P. Moran, Francine B. Peler, Kathleen L. Rao, Charles F. Timmons, Peter J. Wettstein, Alan C. Whitmore

Genetics is one of the most rapidly developing fields of modern biology and basic to the understanding of many aspects not only of biology but also of medicine and the future of man. The Curriculum in Genetics was established to provide an integrated and interacting interdepartmental program of study leading to the Ph.D. degree in genetics. The courses open to the students are primarily those of the participating departments; the facilities as well as the talent of those departments are available to students in the Curriculum of Genetics. Types of research being conducted by faculty members of the Genetics Curriculum include bacterial genetics, microbial genetics, immunogenetics, human and medical genetics, cytogenetics, biochemical genetics, tissue culture, behavioral genetics, anthropological genetics, statistical and population genetics, *Drosophila* genetics, cell biology, molecular biology, and neurobiology. (Although there is a research program of study in medical genetics, there is not a professional program in genetic counseling.) With a stable population, large families in earlier generations, and good records, the state of North Carolina is well suited for the study of human family and population genetics.

Requirements for Admission for Graduate Work

Applications will be favorably considered from students with good academic records and interest in careers in genetics research. They should preferably have majored or minored in one of the following disciplines: chemistry, genetics, biology (zoology or botany), physics, mathematics, biophysics, or bacteriology. They should have taken calculus and organic and physical chemistry, although these are not absolutely essential. Applicants are urged to apply, directly to the Graduate School, as early as possible, although applications will be considered throughout the year. Graduate Record Examination scores, transcripts of records, and letters of recommendation should be received soon after the application.

Requirements for the Ph.D. Degree

Students may receive the Ph.D. degree either in Genetics or in one of the departments participating in the Curriculum. No minor is required for those majoring in Genetics; the requirements concerning a minor for those majoring in a department vary among the participating departments. Graduate students are expected to master one sub-discipline of genetics, but to be sufficiently versed in related aspects of that science. Students work under a research advisor of their choosing, assisted by other faculty members in closely allied branches of genetics.

Genetics Club

The Genetics Club provides a forum for persons interested in all phases of genetics. The club meets at noon every Friday during the academic year. The program consists of seminars by students, staff, and invited speakers from other institutions.

Courses for Graduates and Advanced Undergraduates

105. INTRODUCTION TO BIOCHEMISTRY AND MOLECULAR BIOLOGY (Biochemistry 105) (5). Prerequisites, Chemistry 61, 62 or equivalents. Special emphasis is placed on the chemistry of proteins and nucleic acid, intermediary metabolism, and the molecular aspects of cellular organization. *Five lecture hours a week, fall.* Biochemistry Staff.

106. INTRODUCTION TO BIOCHEMISTRY AND MOLECULAR BIOLOGY (Biochemistry 106) (4). Prerequisite, Biochemistry 105. A continuation of Biochemistry 105 with emphasis on enzyme kinetics, functions of the eukaryotic cell, biochemical genetics, hormones and regulatory mechanisms. *Four lecture hours a week, spring.* Biochemistry Staff.

109. INTRODUCTION TO COMPUTER PROGRAMMING IN THE HEALTH SCIENCES (Biostatistics 109) (2). Prerequisite, Biostatistics 105 or equivalent. Brief introduction to digital computers. Characteristics, design, construction, and maintenance of machine-stored data sets. Statistical analysis with generally available computer programs. Basic computer programming skills using the FORTRAN language. *Three lecture and two laboratory hours a week, summer and fall.* Sorant.

113. INTRODUCTION TO GENETICS (Biology 101, Zoology 117, Botany 170) (3). Prerequisites, Bacteriology 51 or Biology 21 and 22 or Botany 11 or Zoology 11 or permission of instructor. Introduction to the principles of inheritance. Molecular aspects of gene action. Mendelian laws of transmission, the role of genes in development, the genetics of populations. *Three lecture hours a week, fall and spring.* Barry, Hutchison, Parks.

113L. GENETICS LABORATORY (Biology 101L, Zoology 117L, Botany 170L) (2). Students who elect to take this course must do so concurrently with Biology 101 or by permission of instructor. The principles of inheritance are illustrated by experiments with viruses, bacteria, fungi, and higher plants and animals. *Four laboratory hours a week, fall and spring.* Biology 101 Staff.

115. GENETICS AND HUMAN EVOLUTION (Anatomy 115, Anthropology 115) (3). Prerequisite, Introductory Biology or permission of instructor. Fundamental principles of genetics; population genetics; genetic equilibrium; race and species formation; the factors of evolution; and the relation of these principles to the primates, fossil man and modern man. Blood groups and other traits as illustrations. The interplay of biology and culture in human evolution. *Three lecture hours a week, spring.* Pollitzer.

122. HUMAN GENETICS (Zoology 122) (3). Prerequisite, Zoology 11 or permission of the instructor. A study of biological inheritance in man. Effects of mutation, selection, migration, and racial mixture; applications of genetics to medico-legal questions. *Three lecture hours a week, fall.* Zoology Staff.

150. ELEMENTS OF PROBABILITY AND STATISTICAL INFERENCE (Biostatistics 150) (3). Prerequisite, integral calculus or permission of the instructor. Fundamentals of probability theory; descriptive statistics; fundamentals of statistical inference, including estimation and hypothesis testing. *Three lecture hours a week, fall and spring.* Elandt-Johnson.

151. ELEMENTS OF STATISTICAL ANALYSIS (Biostatistics 151) (3). Prerequisite, Biostatistics 150 or equivalent. Goodness of fit, association and correlation; analysis of variance, and some nonparametric alternatives, for the simpler designs, including one-way, and k-way classifications, and Latin squares; regression analysis. *Three lecture hours a week, fall and spring.* Elandt-Johnson.

161. GENETICS (Bacteriology 161) (3). Prerequisites, Biochemistry 100 or 105; Bacteriology 101 or 132. That portion of Bacteriology 161 which covers the current concepts relating to the genetics of bacteria and viruses (approximately 1/2 semester). *Six hours a week for 1/2 semester, spring.* Bacteriology Staff.

163. DEVELOPMENTAL GENETICS (Zoology 163) (3). Prerequisites, Zoology 11 and one genetics course. The genetic control of gametogenesis and fertilization and the molecular basis of gene expression during development. *Three lecture hours a week, spring, 1975-1976 and alternate years.* Lucchesi.

164. MOLECULAR BIOLOGY (Zoology 164) (3). Prerequisite, Zoology 120 or 121; Chemistry 61, prerequisite or corequisite. The nature, production and replication of biological compounds and their relation to structure and function in development. *Three lecture hours a week, spring.* Stafford.

173. PLANT GENETICS (Botany 173) (4). Prerequisite, Genetics 113 (Biology 101) or permission of the instructor. Mendelian genetics of vascular plants; genetic phenomena characteristic of vascular plants; genetics in plant biosystematics. *Three lecture and two laboratory hours a week, spring, 1975-1976 and alternate years.* Parks.

186. POPULATION (Sociology 186) (3). Prerequisite, Sociology 51, or permission of the instructor. A study of problems of quality and quantity of population including theories of population increase and problems of composition, distribution, differential fertility, population pressure, and internal migration. *Fall and spring.* Staff.

222a. HUMAN GENETICS AND CONSTITUTIONAL PATHOLOGY (Pathology 222) (3-1/2). Prerequisite, permission of the instructor. Includes elementary statistics, basic genetic theory and relevant field work with persons, archives and census records. *Two conference and six laboratory hours a week, fall.* Graham.

222b. INDUCED RECOMBINATION (Zoology 222) (3). Prerequisite, Zoology 117 (Genetics 113) (3). The effects of chemical agents and of irradiation upon genetic recombination. Reports from the literature and laboratory experiments on the induction of crossing over. *Six laboratory and conference hours a week, fall, 1975-1976 and alternate years.* Zoology Staff.

223. MUTAGENESIS (Zoology 223) (3). Prerequisite, Zoology 117 (Genetics 113). Study of the action or irradiation with X-rays or similar agents and of chemicals in the environment upon the induction of new mutations. *Three lecture or seminar hours a week, spring, 1975-1976 and alternate years.* Zoology Staff.

226. REGULATORY MECHANISMS (Biochemistry 226) (3). Prerequisite, Biochemistry 106 or equivalent. A discussion of mechanisms for the regulation and control of biochemical reactions. The course will consider the following regulatory mechanisms: genetics, feed-back, and hormonal. *Three lectures a week, spring, summer, 1975-1976 and alternate years.* Fallon, Irvin.

240. SPECIAL TOPICS IN GENETICS (2-4). Prerequisite, permission of the instructor. *Fall.* Staff.

241. SPECIAL TOPICS IN GENETICS (2-4). Prerequisite, permission of the instructor. *Spring.* Staff.

263. SEMINAR IN DEVELOPMENTAL GENETICS (Zoology 263) (2). Prerequisite, Zoology 11 or permission of the instructor. Different areas of developmental genetics will be emphasized each year. These areas will include the genetic control of gametogenesis and fertilization, and the action of genes during embryonic development. *Two hours a week, spring, 1975-1976 and alternate years.* Lucchesi.

272. CYTOGENETICS (Botany 272) (3). Prerequisite, Genetics 113 or Genetics 155. Critical study of research papers concerned with the behavior and organization of chromosomes. *Three hours a week, spring, 1976-1977 and alternate years.* Barry.

275. GENETICS SYSTEMS (Bacteriology 275, Biochemistry 275, Botany 275, Pathology 275) (3). An advanced course in genetics emphasizing the genetics and molecular biology of viruses, bacteria, fungi, insects and mammals and based upon the personal research of the staff. Required of all candidates for the degree in Genetics. *Three lecture hours a week.* Staff.

281. STATISTICAL METHODS IN HUMAN GENETICS (Biostatistics 281) (3). Prerequisite, permission of the instructor. An introduction to statistical procedures for testing genetic hypotheses and estimating genetic parameter, with emphasis on the special methods required for human data. *Three lecture hours a week, spring, 1976-1977 and alternate years.* Elandt-Johnson.

301. RESEARCH (Bacteriology 301) (3 or more). May be continued for credit two or more semesters. *Hours and credit to be arranged, throughout the year.* Gooder.

305. RESEARCH IN GENETICS (3 or more). Prerequisite, permission of the instructor. *Fall, spring and summer.* Staff.

394. DOCTORAL DISSERTATION (3 or more). *Spring, fall and summer.* Staff.

400. GENERAL REGISTRATION (0).

CURRICULUM IN NEUROBIOLOGY

Professors: E. R. Perl, *Curriculum Chairman* (Chairman, Physiology), N. A. Coulter (Biomedical Engineering and Mathematics and Physiology), G. S. Dugger (Surgery), F. W. Ellis (Pharmacology), R. C. Elston (Biostatistics), E. Glassman (Biochemistry and Nutrition, Genetics), I. R. Hagadorn (Zoology), J. Hanker (Oral Biology), R. A. King (Psychology and Physiology), M. R. Krigman (Pathology), M. Kuno (Physiology), M. A. Lipton (Psychiatry; Director, Biological Sciences Research Center, Child Development Institute; Biochemistry and Nutrition), A. T. Miller, Jr. (Physiology), P. L. Munson (Chairman, Pharmacology), P. A. Obrist (Psychology), A. J. Prange (Psychiatry), E. Schopler (Psychology), W. E. Stumpf (Anatomy and Pharmacology), J. E. Wilson (Biochemistry and Nutrition)

Associate Professors: G. D. Allen (Oral Biology), G. R. Breese (Psychiatry and Pharmacology), R. L. Glasser (Physiology), D. E. McMillan (Pharmacology and Psychology), R. L. Montgomery (Anatomy), P. Morell (Biochemistry and Nutrition), C. E. Morris (Neurology), H. C. Mueller (Zoology), R. A. Mueller (Anesthesiology and Pharmacology), L. O'Tuama (Neurology), A. Rustioni (Anatomy and Physiology), M. P. Remler (Neurology and Anatomy), P. G. Shinkman (Psychology), W. G. Thomas (Surgery), B. L. Whitsel (Physiology)

Assistant Professors: D. E. Downie (Surgery), Linda Dykstra-Hylander (Psychology), P. B. Farel (Physiology), L. D. Grant (Psychiatry and Anatomy), Mark Hollins (Psychology), H. S. Hsiao (Surgery), Carol Kornblith (Psychology), D. Lay (Anatomy), D. L. McIlwain (Physiology), G. Meissner (Biochemistry and Physiology), P. Petrusz (Anatomy), J. Prazma (Surgery), D. L. Trevino (Physiology), J. N. Weakly (Physiology), R. H. Wiley (Zoology)

Lecturers: R. W. Oppenheim (North Carolina Department of Mental Health, Division of Research), P. N. Witt (North Carolina Department of Mental Health and Pharmacology)

The Neurobiology Curriculum of The University of North Carolina at Chapel Hill includes faculty from the Departments of Anatomy, Anesthesiology, Biochemistry and Nutrition, Biostatistics, Medicine (Neurology), Oral Biology, Pathology, Pharmacology, Physiology, Psychiatry, Psychology, Surgery, Zoology and from the Curricula in Genetics, and in Biomedical Engineering and Mathematics. The theme unifying members of these diverse departments is a desire to understand the mechanisms whereby the nervous system functions. While sharing this fundamental interest in the nervous system, research techniques used by members of the Curriculum are quite diverse and provide the student with the opportunity to master a wide variety of laboratory skills.

Graduate students working toward the Ph.D. in Neurobiology must take Neurobiology 101a, 111, 112, 290, 302 and Physiology 204, as well as other courses suggested by the Associate Director for Training.

The minor in Neurobiology consists of a minimum of 15 hours of coursework selected from the list below (but *not* both Neurobiology 100 and 105) with the approval of the Associate Director for Training.

Special fellowships, commensurate with usual grants-in-aid, are available to support graduate students who are working toward the Ph.D. degree under the direction of a faculty member in the Neurobiology Program and who major or minor in Neurobiology. After the second year, graduate students are eligible to receive travel awards to attend national meetings.

Inquiries and requests for applications should be addressed to The Graduate School, Steele Building, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514.

Courses for Graduates and Advanced Undergraduates

100. BIOCHEMISTRY FOR STUDENTS OF BIOLOGY AND CHEMISTRY (Biochemistry 100, Zoology 107) (3). Prerequisites, Chemistry 61 and one course in biology. Lectures on the regulation and mechanism of reactions in living organisms, with emphasis on general principles. Protein structure and enzyme function; central pathways in intermediary metabolism; metabolic control; expression of genetic information; molecular disease. *Fall.* Wolfenden and others.

101a. NEUROANATOMY (Anatomy 101) (5). The central nervous system and organs of special sense.

101b. INTRODUCTION TO BIOMEDICAL ENGINEERING (BMME 101) (3). Prerequisites, Mathematics 32 and Zoology 11 or equivalents. Topics included are dimensional analysis in biology, biomechanics, biorheology, bioacoustics, membrane transport, bioelectricity, sensory transducers, biological control systems, and neural information processing. Coulter.

101c. CONDITIONING AND LEARNING (Psychology 101) (4). Prerequisite, Psychology 27. A study of classical conditioning and instrumental learning experiences. Standard and original experiments in the laboratory. *Two lecture and four laboratory hours a week, fall.*

102. BIOLOGICAL FOUNDATIONS OF BEHAVIOR (Psychology 102). Prerequisite, Psychology 27 or permission of the instructor. Ethnological, genetic and physiological variables will be studied in relation to their behavioral effects. *Two lecture and three laboratory hours a week, spring.*

105. INTRODUCTION TO BIOCHEMISTRY AND MOLECULAR BIOLOGY (Biochemistry 105) (5). Prerequisites, Chemistry 61, 62 or equivalents. This is the first semester of an introductory course at a more exhaustive level than Biochemistry 100, 101a, or 101b. This semester deals mainly with the metabolism and structure of proteins, nucleic acids and lipids, as well as enzyme kinetics and energy metabolism. *Five lecture hours per week, fall.* Staff.

106a. INTRODUCTION TO BIOCHEMISTRY AND MOLECULAR BIOLOGY (Biochemistry 106) (5). Prerequisite, Biochemistry 105. A continuation of Biochemistry 105 with emphasis on the duplication (DNA synthesis), transcription (RNA synthesis) and translation (Protein synthesis) of the genetic code, functions of the eukaryotic cell, biochemical genetics, hormones, neurochemistry and regulatory mechanisms. *Five lecture hours per week, spring.* Staff.

106b. PHYSIOLOGICAL PSYCHOLOGY (Psychology 106) (3). Prerequisite, Psychology 10, or a course in Zoology. Elements of neurophysiology, neuroanatomy, and neurochemistry as they apply to the understanding of behavior and conscious experience. *Fall.* King.

110. TECHNIQUES IN PHYSIOLOGICAL PHARMACOLOGY (Pharmacology 110) (3). Prerequisite, permission of the instructor. Students will learn and perform a

variety of physiological techniques often used in classical pharmacological research. *One lecture and six laboratory hours a week, spring.*

111, 112. NEUROBIOLOGY LABORATORY APPRENTICESHIP (3-9). Prerequisite, permission of the Director of Training of the Neurobiology Program. A laboratory-tutorial course to acquaint the student with the methods used in several areas of neurobiology. *Fall, spring.* Faculty of the Neurobiology Program.

111a. BIOMEDICAL INSTRUMENTATION (BMME 111) (3). Prerequisite, Mathematics 32 or equivalent, permission of the instructor. Designed for advanced biology students without previous backgrounds in electronics. The fundamentals of biomedical instrumentation are developed, and applied in laboratory exercises using modern electronic instruments. *Spring.* Hsiao.

113. ANIMAL BEHAVIOR (Zoology 113) (4). Prerequisite, Zoology 11 or permission of the instructor. *Three lecture and three laboratory hours a week, fall.* Staff. (The lab can be taken separately.)

118. NEUROENDOCRINOLOGY (Anatomy 118, Pharmacology 118) (2). Prerequisite, permission of the instructor. A review of presently held concepts in neuroendocrinology with emphasis on topographical aspects of brain structures related to hormone action. *Spring, 1976 and alternate years.* Stumpf.

120. COMPARATIVE PHYSIOLOGY (Zoology 120) (3). Prerequisite, Zoology 11; prerequisite or corequisite, Chemistry 61. *Two lecture and six laboratory hours a week, fall.* Hagadorn.

120L. COMPARATIVE PHYSIOLOGY LABORATORY (Zoology 120L) (2).

121. INTRODUCTION TO BIOMEDICAL DATA PROCESSING (BMME 121, Physiology 121) (3). Prerequisite, Computer Science 216X or equivalent. This is an introduction to the methods of automatic computation of special relevance to biomedical problems. Downie.

123. BEHAVIORAL PHARMACOLOGY (Pharmacology 123, Psychology 123) (3). Prerequisites, Pharmacology 216, or Psychology 101 and 106, or their equivalent. Basic principles of pharmacology and of the experimental analysis of behavior will be considered in relation to the behavioral pharmacology of central nervous system stimulants, antidepressants, tranquilizers, hallucinogens and narcotics. *Two lecture and two laboratory hours a week, spring, 1975 and alternate years.* McMillan.

125. INTRODUCTION TO NEUROPHYSIOLOGY (Zoology 125) (3). Prerequisite, Zoology 120 or 121 or permission of the instructor. Comparative structure and function of the nervous systems. *Three lecture hours a week, spring.*

131. INTRODUCTION TO BIOMATHEMATICS (BMME 131) (3). Prerequisite, Mathematics 32 or equivalent. An introduction to the dynamic analysis of biological systems, including: differential equations of behavior, transient response, Fourier analysis and frequency response, and applications of the LaPlace transform in biology and medicine. Downie.

140. CELL AND ORGAN SYSTEM PHYSIOLOGY (Physiology 140) (5). Prerequisites, Physiology 102, Zoology 120 or equivalent and permission of the instructor. Principles of cell and organ system physiology given at an advanced level. *Spring.* Kuno and staff.

150. NEUROBIOLOGY (3). Prerequisite, permission of the instructor. A tutorial in selected topics in neurobiology tailored to meet interests of the students and competencies of instructors. *Fall and spring.* Staff.

160. DEVELOPMENTAL NEUROBIOLOGY (3). Prerequisites, courses in general biology and psychology and permission of the instructor. This course will be a general discussion of problems of structural and functional development of the

vertebrate nervous system using examples from fish, amphibians, birds and mammals, including man. *Spring.* Oppenheim.

172. COMPARATIVE ENDOCRINOLOGY (Zoology 172) (3). Prerequisite, a course in physiology or permission of the instructor. A survey of hormonal mechanisms in vertebrates and invertebrates; the comparative anatomy and physiology of the endocrine organs, their target tissues, and their role in neuroendocrine correlation. *Three lecture and discussion hours per week, spring, 1976 and alternate years.* Hagadorn.

Courses for Graduates

201a. EXPERIMENTAL METHODS: CONTINUING AND LEARNING (Psychology 201) (3). Principal problems of experimentation; classical conditioning, operant conditioning, verbal behavior. *Three lecture hours a week, fall.* Eckerman, Long, Waller.

201c. ADVANCED BIOMEDICAL INSTRUMENTATION (BMME 201) (3). Prerequisite, BMME 111 or equivalent. Designed for students who already possess some knowledge of biomedical instrumentation but desire to acquire additional sophistication in the methods of modern biological instrumentation. Hsiao.

202. BIOLOGICAL PSYCHOLOGY (Psychology 202) (3). Prerequisite, graduate standing in psychology or permission of the instructor. The course will have two parts: a survey of basic brain-behavior relations, e.g., in perception, learning, and motivation, and a survey of topics in applied neuropsychology, including behavioral effects of brain damage, brain mechanisms in language, and normal brain functioning in man. *Three lecture hours a week, spring.* Shinkman, Stiles.

203. ADVANCED PHYSIOLOGY (Physiology 203) (5). Prerequisites, Physiology 140 or equivalent and permission of the Chairman of the Department. Selected topics in cellular and organ-system physiology are covered in depth through lectures, seminars, laboratory exercises and demonstrations. *Fall.* Staff.

204. ADVANCED BIOLOGICAL PHYSIOLOGY: CENTRAL NERVOUS SYSTEM (Psychology 204) (3). Prerequisite, Psychology 106 or equivalent. Each fall one specific topic will be covered in depth. Format will include lecture and seminar meetings with student presentations. *Fall.* Shinkman.

205. ADVANCED BIOLOGICAL PSYCHOLOGY: AUTONOMIC NERVOUS SYSTEM (Psychology 205) (3). Prerequisites, Psychology 106 and/or 202, or permission of the instructor. Autonomic nervous system bases of emotion, motivation and learning. *Two lecture and two laboratory hours a week, on demand.* Obrist.

211, 212. SPECIAL TOPICS IN PHYSIOLOGY (Physiology 211, 212) (3-5). Prerequisite, permission of the instructor. Individually arranged programs of study in depth of selected topics. *Fall and spring.* Staff.

218. EXPERIMENTAL ENDOCRINOLOGY (Zoology 218) (2). Prerequisite, permission of the instructor; Corequisite, Zoology 172. *Six laboratory hours per week, spring, alternate years.* Hagadorn.

220. NEUROPATHOLOGY (Pathology 220) (5). Prerequisite, Pathology 161S. Systematic study of the more common diseases of the nervous system. *Two conference and six laboratory hours a week, spring and summer.* Krigman.

221. NEURAL INFORMATION PROCESSING (BMME 221) (3). Prerequisites, Biomedical Engineering-Biomedical Mathematics 101 and Physiology 140 or equivalent. This approaches the nervous system as a data processing network, and the brain as the computer for a homeostat. Coulter.

225. EXPERIMENTAL NEUROPHYSIOLOGY (Zoology 225) (3). Prerequisite, permission of the instructor. Application of electrophysiological techniques to the study of the nervous function. *Six or more laboratory hours a week.*

227. NEUROCHEMISTRY (Biochemistry 227) (3). Prerequisite, Biochemistry 106 or equivalent. An introductory course in the biochemistry of the nervous system. Topics include aspects of energy metabolism and the matabolism of macromolecules in the nervous system. *Fall, 1976 and alternate years.* Wilson, Glassman, Morell.

235. SEMINAR IN CHEMICAL NEUROBIOLOGY (Biochemistry 235) (3). *Fall, 1975-1976 and alternate years.* Wilson, Glassman, Morell.

259. SEMINAR IN COMPARATIVE ANIMAL BEHAVIOR (Zoology 259).

260. SEMINAR IN COMPARATIVE PHYSIOLOGY (Zoology 260) (2). Prerequisite, Zoology 120 or permission of the instructor. *Spring, 1974 and alternate years.* Hagadorn.

290. SEMINAR IN NEUROBIOLOGY (Biochemistry 290, Physiology 290, Pathology 290, Pharmacology 290, Psychology 290) (3). Prerequisite, permission of the Director of Training of the Neurobiology Program. An intensive consideration of selected topics and problems. Participation required of Neurobiology Trainees. *Spring.* Faculty of the Neurobiology Program.

299. ADVANCED CHEMICAL NEUROBIOLOGY (Biochemistry 299) (3). Prerequisites, Biochemistry 100 or 105, 227, 235; 111-112, 290, and permission of the instructor. An advanced lecture and discussion course on various approaches to research and scholarly activities in Chemical Neurobiology. *Fall and spring.* Glassman and others.

302. SEMINAR IN BIOLOGICAL FOUNDATIONS OF PSYCHOLOGY (Psychology 302) (3). King, Obrist, Shinkman.

310. RESEARCH IN NEUROBIOLOGY (Biochemistry 310, Pathology 310, Pharmacology 310, Physiology 310, Zoology 310, Psychology 310) (3-12). Prerequisite, permission of a staff member. Research in various aspects of neurobiology. *Six to twenty-four hours a week, fall and spring.* Faculty of the Neurobiology Program.

394. DOCTORAL DISSERTATION (3 or more). *Fall, spring and summer.* Research adviser.

400. GENERAL REGISTRATION (0).

BIOLOGICAL SCIENCES RESEARCH CENTER

Director: Morris A. Lipton, Ph.D., M.D., Sarah Graham Kenan Professor, Psychiatry, Professor of Biochemistry

The Biological Sciences Research Center is one of two centers comprising the University of North Carolina Child Development and Mental Retardation Research Institute, an interdisciplinary program of research and training in the area of child development and mental retardation, directed by Dr. Cecil G. Sheps, who is also Vice-Chancellor for Health Sciences and Professor of Social Medicine. The other center in the Institute is the Frank Porter Graham Child Development Center, which addresses itself primarily to the stimulation and education of culturally disadvantaged children from the ages of six weeks through elementary school. Its research and training is largely in the psychological and educational disciplines although medical research and care are part of the program. Its Director is Dr. James J. Gallagher, Kenan Professor of Education.

The Biological Sciences Research Center, located on the School of Medicine campus, is concerned with biological and medical research in normal and pathological child development. This Center is divided into three divisions: (1) the Child Psychiatry Division, (2) the Research Division, made up of biological and psychological animal and clinical research laboratories, and (3) the Division for Disorders of Development and Learning. Center programs include research in reproductive

physiology, experimental embryology, developmental neurochemistry, developmental neurophysiology, and developmental neuroendocrinology. The Child Psychiatry Division is concerned with the treatment and management of mentally disturbed children and with research into causes, treatment and prevention of these disturbances. The Research Division includes basic and clinical research on the biology of the developing and retarded central nervous system. The Division for Disorders of Development and Learning is concerned with the development of new techniques for measuring, treating and preventing developmental deficits in the central nervous system and for the training of medical, scientific and paramedical personnel in the diagnosis and treatment of developmentally disabled children.

THE CLINICAL RESEARCH UNIT

Director: William B. Blythe, M.D., Professor of Medicine
Associate Directors: Campbell W. McMillan, M.D., Professor of Pediatrics; Timothy K. Gray, M.D., Associate Professor of Medicine
Chairman, Clinical Research Advisory Committee: Judson J. Van Wyk, M.D., Professor of Pediatrics

The Clinical Research Unit of the School of Medicine, which was opened in January of 1962, provides a setting for the faculty to investigate problems of normal and abnormal physiology of man. It is supported by a grant from the National Institutes of Health of the United States Public Health Service.

The Unit is located within the North Carolina Memorial Hospital, but it is a separate facility with its own staff, beds, research kitchen, and laboratories.

The policies of the Clinical Research Unit are guided by the Clinical Research Advisory Committee, a committee of the faculty of the School of Medicine, which is appointed by the Dean.

DIVISION OF EDUCATION AND RESEARCH IN COMMUNITY MEDICAL CARE

The Division of Education and Research in Community Medical Care was created in January, 1966.

The Division, a staff function of the Dean's Office, has designed a multidisciplinary approach to the problems of community medical care.

The Area Health Education Centers Program (AHEC) in North Carolina with its emphasis on undergraduate, graduate and continuing education is providing educational opportunities for training medical students as well as other health sciences students in community hospitals and with community practitioners across the state. These community-based educational opportunities are increasing the clinical primary care exposure for all health professional students and will eventually be available in all nine Area Health Education Centers in North Carolina. The program is the responsibility of the Division of Education and Research in Community Medical Care of the Dean's Office of the School of Medicine.

The goals of the Area Health Education Centers Program are to increase the numbers, improve the geographic distribution, improve the specialty distribution, and augment the retention of physicians and other health manpower in the defined geographic region.

A. Improve the geographic distribution and augment the retention of physicians and other health manpower by:
    1. Providing students enrolled at the academic health sciences center with a meaningful exposure (i.e., substantial time and a quality curriculum) to community hospitals and community practitioners.
    2. Improving the professional environment by decreasing the professional isolation for practitioners through student, resident, and continuing education programs in the region.

3. Focusing equal attention on regional education needs in nursing, pharmacy, allied health, public health and dentistry. This includes coordinated in-service and continuing education programs for practitioners in these fields.
4. Developing regional training programs for nurse practitioners, physicians' assistants, and other physicians extender roles.

B. Increase the ratios of primary care practitioners to specialties by:
1. Increasing the clinical primary care exposure for medical and other health professional students at the academic health sciences center and in regional settings.
2. Developing new residency positions both at the academic health sciences center and the regional center(s). These new residency positions will be devoted to primary care fields, especially family practice but including internal medicine, pediatrics, obstetrics-gynecology, and psychiatry.

C. Accomplish the above in a manner which enriches the education experiences of students enrolled in the academic health sciences without detracting from the quality of traditional university based educational programs.

The staff of the Division consists of the Director, Glenn Wilson, M.A., Associate Dean for Community Health Services and Professor of Medical Economics; Moses Carey, Jr., M.S.P.H., Associate Director of the Division; Connie Evashwick, M.Sc., D.Sc., Assistant Professor in the Department of Hospital Administration; J. Robert Koewing, S.T.M., M.Div., Assistant Professor in the Department of Medical Allied Health Professions; Eugene Mayer, M.D., Associate Professor in the Department of Family Medicine; David Metz, M.P.A., Assistant Professor in the Department of Hospital Administration; John A. Payne, M.P.H., Associate Director of the Division, Assistant Professor in the Department of Family Medicine; W. Reece Berryhill, M.D., Sarah Graham Kenan Professor of Medicine, Emeritus (Consultant); Earl D. Provancha, M.A., Director of Air Transportation and Lecturer (part-time) in the Department of Family Medicine.

Courses

401. THE ECONOMICS OF MEDICAL CARE (6). Prerequisite, completion of first year. The basic purpose of this elective is to provide medical students with a broader understanding of the underlying economic principles affecting the delivery of health services. Selected required reading and a final paper. The first 6 seminars would be on basic economic principles and systems throughout the world and include national income accounting, banking system, and an analysis of the current economic system in the U.S. This would probably be broken down as follows: 2 sessions on basic capitalist theory, and 1 each on socialism, communism, national income accounting, banking and currency, and the current status of the U.S. economic system. There would be 2 sessions on the unique characteristics of medical economics, 1 each on history of medicine, personnel management, 3 on the legislative process, both state and federal, and the final 2 sessions on current health proposals in the U.S. *Eighteen two-hour sessions, academic year.* Wilson.

402. MEDICAL CARE IN ENGLAND (6). Prerequisite, completion of first year. The program arranged through the Duke Endowment and the King Edward VII Hospital Fund makes available five to six expense paid fellowships for a four-week summer program based in London, England. The program is a study of the system of delivery of health services in England and is based partly at the King's Fund College in London and partly in the field. Selections will be made by Community Medical Care. *Summer.* Wilson and Staff of King's Fund.

403. READINGS AND PROJECTS IN COMMUNITY MEDICINE (6). Prerequisite, completion of first year. This elective allows a student to pursue studies of individual interest in some aspect of community medicine by working closely with a member of the University faculty who is also interested in the same field of study. Working individually or in a small group (occasionally with students from other

disciplines) the medical student has the opportunity to arrange for elective study in any area so long as it broadly relates medicine to society. For example, activities may range from research and developmental activities in health care delivery programs, to seminars in religion and medicine, to participation in the development of new health legislation, etc.

Programs proposed by the faculty are kept in a book in the coordinator's office where students may review these suggestions. Students may also propose program ideas to the coordinator who will discuss the idea with the student and try to arrange for appropriate faculty supervision.

Depending on the specific project this elective can be conducted during a four week elective period. *Designed to run concurrently with the second-year curriculum.* Mayer.

410. INSTRUCTION AND EVALUATION IN MEDICAL EDUCATION (6). Prerequisites, completion of year one and permission of instructor. This elective has been designed for the student who is considering a career in medicine which will involve spending at least part of his time in teaching. The elective will be structured individually depending on the student's specific interest, but will center on participation in some type of instructional development, teaching and/or evaluation project in which the Office of Medical Studies staff is currently engaged. It is likely that the student will want to conduct his own project in consultation with an advisor from a basic science or clinical department and a faculty member from Medical Studies.

The project might focus on possibilities for particular courses and programs such as (1) assessing and determining instructional needs, (2) analysis of instructional resources for developing or improving a program, (3) determination of a program's instructional goals or objectives, (4) designing the instructional format or media, (5) determining and developing the most appropriate teaching strategy, (6) developing student self-assessment approaches, (7) developing simulation methods for teaching and evaluating, or (8) designing and implementing evaluation methods. *Spring, fall, summer sessions; duration one month.* Staff of Office of Medical Studies.

411. THE MEDICAL ATTITUDE, HUMAN VALUES AND PATIENT CARE (6). Prerequisite completion of *two* clinical clerkships. This elective provides opportunity to explore medical training and practice in its human dimensions. An open discussion of attitudes, values and ethical choices as they relate to clinical practice is provided in seminar meetings. Routine as well as exotic issues are given attention. Topics for discussion include abortion, death and dying patients, informed consent, professional values in medicine, responsibility, *et al.* Resources for study will be drawn from literature, philosophy and ethics, as well as case studies of students and practicing clinicians. Individual research on problems of special interest is encouraged. *Fall semester.* Bryan, Churchill.

412. TUTORIAL AND READINGS IN MEDICAL ETHICS (6). Prerequisite, completion of first year. This elective allows a student to pursue studies of individual interest in some aspect of medicine and ethics. Working individually or in a small group the medical student will have opportunity to probe specific ethical issues in depth and, where appropriate, to draw upon the resources of the larger University as well as the medical faculty. Reading and research will be complemented by attendance at related seminars, rounds and classes and by focused discussions with the coordinator. Areas for study may include precise problem areas, such as abortion, euthanasia or human experimentation, or broader fields such as medicine and religion, or the philosophy of medicine.

Depending on the nature of the study, this elective can be conducted during the school year, or as a concentrated four week elective. *Concurrent with second-year curriculum.* Coordinator: Churchill.

DIVISION OF LABORATORY ANIMAL MEDICINE

Associate Professor: J. R. Pick[1], D.V.M. *(Director)*
Assistant Professor: Kenneth Dee Corey[1], D.V.M., Ph.D.
Instructor: Philip T. Johnson[1], D.V.M., M.S.

The Division of Laboratory Animal Medicine provides support for all of the animal-related teaching and research activities conducted by the staff of the School of Medicine. The veterinary staff is also responsible for the humane use and health care of all laboratory animals on the Chapel Hill campus.

The division offers postdoctoral training in laboratory animal medicine to a limited number of qualified veterinarians. A program in comparative pathology is offered in cooperation with the Department of Pathology. Members of the staff are available to answer questions relating to utilization of laboratory animals, and to advise individuals interested in pursuing careers in veterinary medicine. The offices of the division are located in Berryhill Hall.

THE LABORATORIES FOR REPRODUCTIVE BIOLOGY

Professors: H. S. Bennett *(Director)*, R. S. Bear, R. M. Brown, Jr., L. J. Irvin, W. H. Pearlman, W. E. Stumpf
Associate Professors: F. S. French, J. Hulka
Assistant Professors: L. D. Grant, K. Marushige, P. Petrusz
Research Associates: R. J. Chandross, Y. Marushige, M. Sar, L. Tres
Research Assistant: Y. Tanaka

The Laboratories for Reproductive Biology accommodate an interdisciplinary and interdepartmental research and training program organized primarily for purposes of improving mankind's comprehension of reproduction in living things. Special emphasis is placed on applying the approaches of modern molecular and cell biology to studies of biological reproductive processes. Post-doctoral training is offered by special arrangements with members of the Laboratories.

The research work of the Laboratories for Reproductive Biology is carried out in the laboratories of associated members, wherever they are located. A central focus of 10,000 square feet of laboratory space assigned to the Laboratories for Reproductive Biology is located in the Swing Building on the southwest edge of the campus.

OFFICE OF CONTINUING EDUCATION

The Office of Continuing Education, located in 219 MacNider Building, is responsible for the planning of postgraduate programs both at the Medical Center and within the State. This is accomplished through close relationships with the community hospitals affiliated with the School of Medicine, the North Carolina Medical Society, the North Carolina Academy of Family Physicians and the other medical schools in North Carolina.

[1] Appointment in the Department of Pathology.

THE STUDENT REGISTER

FIRST YEAR CLASS

President: Steve McKinnon
Laboratory Representatives: Betty King, Veronica Ray, Steve McKinnon, Margery Svend, Steven Krumholz

Carla Suzanne Alexander (Chapel Hill, N.C.), Randolph-Macon Woman's College, A.B., 1968; University of Maryland, M.L.S., 1969
Michele LaRue Alston (Littleton, N.C.), University of North Carolina, A.B., 1974
William McCarty Ardrey (Charlotte, N.C.), Winston-Salem State, B.S., 1975
Joan Margo Baker (Maxton, N.C.), Pembroke State University, B.S., 1974
Andrew H. Balder (Miami Beach, Fla.), Amherst College, B.A., 1975
Noel Hudson Ballentine (Chapel Hill, N.C.), University of North Carolina, B.S., 1974
Charles Harold Barrier (Greensboro, N.C.), University of North Carolina, A.B., 1975
Thomas Avery Barringer III (Charlotte, N.C.), University of North Carolina, B.A., 1975
Doris Jean Batts (Rocky Mount, N.C.), North Carolina A & T State University, B.S., 1975
Richard LeQueux (Greenville, N.C.), East Carolina University, B.A., 1973
John Derrick Brandon (Williamston, N.C.), Duke University, B.S., 1976
Harry R. Brashear III (Carrboro, N.C.), University of North Carolina, A.B., 1974
Jeffrey Allen Buckwalter (Chapel Hill, N.C.), University of North Carolina, B.A., 1975
Stanley Jon Bunas (Chapel Hill, N.C.), University of California, B.S., 1969
Robert William Bynum IV (Stentonsburg, N.C.), University of North Carolina, B.A., 1975
Ruby Jean Cain (Durham, N.C.), South Carolina State College, B.S., 1968; North Carolina Central University, M.S., 1973
John Darroch Cameron (Gastonia, N.C.), University of North Carolina, A.B., 1974
Gail Marie Capel (Raleigh, N.C.), University of North Carolina, B.A., 1974
Peter Eugene Carson (Chapel Hill, N.C.), University of North Carolina, A.B., 1973
Herman Chavis (Shannon, N.C.), Pembroke State University, B.S., 1975
William Hugh Craft, Jr. (Greensboro, N.C.), North Carolina State University, B.S., 1975
David Franklin Craig (Asheville, N.C.), North Carolina State University, B.S., 1974
Henry LeRoy Cromartie III (Clinton, N.C.), North Carolina State University, B.S., 1974
Scott Rollins Crowgey (Charlotte, N.C.), Duke University, B.S.E., 1975
Walter Eugene Daniel, Jr. (Charlotte, N.C.), Davidson College, B.S., 1967; University of North Carolina, Ph.D., 1972
Walter Clifton Daniels (Chapel Hill, N.C.), University of North Carolina, B.A., 1974
Shirley Diane Davis (Chapel Hill, N.C.), Eckerd College, B.S., 1971
Eric Lynn Dean (Concord, N.C.), University of North Carolina, B.S., 1975
Cynthia Ann DeFrance (Durham, N.C.), Duke University, B.A., 1973
Douglas Mason DeLong (Durham, N.C.), Duke University, B.A., 1973
Barry Shelton Dicicco (Levittown, N.Y.), Yale University, B.S., 1975
Frederick Andrew Dorr (Rocky Mount, N.C.), Davidson College, B.S., 1975
Ernest Clinton Dunn, Jr. (New Bern, N.C.), East Carolina University, B.A., 1975
Elizabeth Anne Eagle (High Point, N.C.), University of Kansas, B.G.S., 1975
Andrew Haven Eddy, Jr. (Trenton, N.C.), Harvard University, B.A., 1968; Purdue University, B.S., 1975
Melissa Jane Eddy (Durham, N.C.), Duke University, B.S., 1974
Allen Richard Edwards (Indian Trail, N.C.), University of North Carolina, A.B., 1975
Charles Earl Fayton (Edenton, N.C.), University of North Carolina, A.B., 1975
John Vaughn Ferguson (King, N.C.), Wake Forest University, B.A., 1975
Mark Lewis Fields (Greensboro, N.C.), Hampton Institute, B.A., 1975
Robert Edwin Finch, Jr. (Raleigh, N.C.), North Carolina State University, B.S., 1969
Ellen Beth Fitzgerald (Stillwater, Okla.), Radcliffe College, B.A., 1975

Sharon McGarry Foster (Durham, N.C.), Duke University, B.A., 1973
Ira Ray Friedlander (Raleigh, N.C.), University of Chicago, B.S., 1975
Michael Stephen Garrison (Gastonia, N.C.), University of North Carolina, A.B., 1975
David Lee Gaston, Jr. (Winston-Salem, N.C.), Winston-Salem State
Gregory Mark Gillette (Raleigh, N.C.), Knox College, B.A., 1972
Mark Dwight Glenn (Durham, N.C.), North Carolina State University, B.S., 1975
Robin Thad Goodwin (Hendersonville, N.C.), College of William and Mary, B.S., 1975
Michael Sumner Gurney (FPO San Francisco, Oahu, Hawaii), Wake Forest University, B.S., 1975
William Chalmers Haden, Jr. (Asheboro, N.C.), University of North Carolina, B.A., 1975
Elwood Hardin (Pembroke, N.C.), Pembroke State University, B.S., 1969; University of North Carolina at Greensboro, M.Ed., 1972
Glenn Sherwood Harman (Lenior, N.C.), North Carolina State University, B.S., 1975
Cynthia Loretta Harrell (Ahoskie, N.C.), Wellesley College, B.A., 1975
Richard Mack Harrell (Nashville, Tenn.), University of North Carolina, B.A., 1975
Charles Odell Harris (Elizabeth City, N.C.), University of North Carolina, A.B., 1975
David James Henderson (Elizabeth City, N.C.), Elizabeth City State University, B.S., 1974
Patricia Kaye Hill (Dobson, N.C.), Surry Community College, A.A., 1971; University of North Carolina, B.A., 1972
Carla Jean Hinds (Chapel Hill, N.C.), Mississippi College, B.S., 1971; University of North Carolina, M.S., 1974
Thomas Riley Hinson (Burlington, N.C.), University of North Carolina, B.A., 1975
Lawrence Hoskins Hooper, Jr. (Greensboro, N.C.), University of North Carolina, A.B., 1975
Henry Joseph Horacek, Jr. (Walnut Creek, Calif.), University of California, B.A., 1975
Ronald Charles Huffman (Hickory, N.C.), University of North Carolina, B.S., 1972
Edward Claude Jones (Dobson, N.C.), North Carolina State University, B.S., 1974
Judy Sharon Jordan (Kannapolis, N.C.), University of North Carolina, B.S., 1971
Kent Michael Kalina (Liberty, N.Y.), Hamilton College, B.A., 1975
Anne Turner Keifer (Whispering Pines, N.C.), University of North Carolina, B.A., 1975
John Conlon Keifer (Asheville, N.C.), University of North Carolina, B.A., 1975
Roger Kenny Kerley (Taylorsville, N.C.), University of North Carolina, B.S., 1973
Richard Edward Kinard (Greensboro, N.C.), University of Florida, B.S., 1975
Betty Jean King (Warrenton, N.C.), North Carolina Central University, B.S., 1971
Alywin Ennis Kluttz (Lilesville, N.C.), University of North Carolina
David Wolters Kohl (Chapel Hill, N.C.), University of North Carolina, A.B., 1974
John Chapin Koomen (Raleigh, N.C.), University of North Carolina, B.A., 1967
Steven Krumholz (Rego Park, N.Y.), Queens College, B.S., 1975
John Morrison Lafferty (Hickory, N.C.), University of North Carolina, A.B., 1974
James Emmett Lenz, Jr. (Durham, N.C.), Duke University, B.S., 1969, M.S., 1973
Alfred Boyd Little (Gastonia, N.C.), North Carolina State University, A.A., 1967; University of North Carolina, B.A., 1974
Kenneth Edward Locklear (Pembroke, N.C.), Pembroke State University, B.S., 1975
Stephen Stuart Logue (Lancaster, Ohio), Ohio State University, B.S., 1969
Kenneth Maurice Lovette (Chapel Hill, N.C.), Mars Hill College, B.S., 1972; University of North Carolina, M.S., 1975
Charles Edward Lownes (Albany, N.Y.), North Carolina A & T State University, B.S., 1968
John Jacob Marks (Chapel Hill, N.C.), Duke University, B.S., 1974
James Perry Mayo, Jr. (Fayetteville, N.C.), University of North Carolina, B.A., 1975
Steve Malone McKinnon (High Point, N.C.), Howard University, B.S., 1975
Julia Elizabeth McMurray (Shelby, N.C.), Duke University, B.S., 1974

Walter Vernon Meadors, Jr. (Goldsboro, N.C.), University of North Carolina, B.S., 1975
Darlyne Menscer (Raleigh, N.C.), Wake Forest University, B.A., 1975
Lawrence Charles Mohr, Jr. (Fayetteville, N.C.), University of North Carolina, A.B., 1975
Glenndale Moore (Rocky Mount, N.C.), Morehouse College, B.S., 1975
Lucy Ann Nunnally (Raleigh, N.C.), Michigan State, B.S., 1975
Harold Payne Overcash (Albermarle, N.C.), East Caroling University, B.A., 1975
Christian Edward Paletta (Durham, N.C.), Duke University, B.A., 1974
Susan Pate (Pikeville, N.C.), East Carolina University, B.A., 1975
Lawrence Hamilton Pearson (Liberty, N.C.), Appalachian State University, B.A., 1973
James Gwyn Peden, Jr. (Hickory, N.C.), University of North Carolina, B.A., 1975
Cort Andrew Pedersen (Chapel Hill, N.C.), Duke University, B.A., 1971
Charles Adams Peters II (Chapel Hill, N.C.), Yale University, A.B., 1966
Herbert Wheatley Plimpton, Jr. (Raleigh, N.C.), Princeton University, A.B., 1974
Thomas Burton Prebble (Greensboro, N.C.), Duke University, B.A., B.S., 1975
Edna Jacquelin Prince (Greensboro, N.C.), University of North Carolina
Joe Billy Putnam, Jr. (Cherryville, N.C.), University of North Carolina, A.B., 1975
David Ray Raper (Rocky Mount, N.C.), University of Louisville, B.A., 1973
Alan Mark Rauch (Greensboro, N.C.), University of North Carolina, A.B., 1972
Veronica Josephine Forbes Ray (Durham, N.C.), Barnard College, B.S., 1975
Charles Nathan Reed (Kings Mountain, N.C.), University of North Carolina, A.B., 1975
James Rogers, Jr. (Enfield, N.C.), Hampton Institute, B.A., 1975
John Mark Rowles (Hickory, N.C.), Duke University, A.B., 1970
James Lyon Sanderford, Jr. (Chapel Hill, N.C.), University of North Carolina, B.A., 1973
Natalie Lorraine Sanders (Durham, N.C.), University of North Carolina
Robert Alan Scarr (Fairfax, Va.), College of William and Mary, B.S., 1975
Kenneth Allan Sharpe (Kannapolis, N.C.), University of North Carolina, A.B., 1974
Steven Richard Sherwin (Pinehurst, N.C.), New York University, B.A., 1974
David Morton Siegel (Chapel Hill, N.C.), University of North Carolina, A.B., 1975
Richard Lee Sigmon, Jr. (Lexington, N.C.), University of North Carolina, A.B., 1973
Barbara Ann Slade (Carrboro, N.C.), Trinity College, A.B., 1969; Emory University, M.S., 1972
Anita Diane Sloan (Rockwell, N.C.), University of North Carolina, B.S., 1975
Jeffrey Alan Smith (Cary, N.C.), North Carolina State University, B.S., 1974
Theresa Ann Steeper (La Vale, Md.), Duke University, B.S., 1975
William Lee Stewart (Concord, N.C.), North Carolina State University, B.S., 1975
Robert Mark Stiegel (Charlotte, N.C.), North Carolina State University, B.S., 1975
Mary Catherine Surles (Raleigh, N.C.), North Carolina State University, B.S., 1973
Margery Sue Sved (Chapel Hill, N.C.), Duke University, A.B., 1974
Frances Russell Thomas (Carrboro, N.C.), Bryn Mawr, A.B., 1969
Hubert Hiram Thomason, Jr. (Charlotte, N.C.), North Carolina State University, B.S., 1974
Douglas Buchanan Thomson (Hendersonville, N.C.), Kenyon College, B.A., 1973; University of North Carolina, M.P.H., 1975
Ross Walden Tye (Chapel Hill, N.C.), University of California, B.S., 1965; University of Washington, Ph.D., 1971
Paul Alfred Vadnais (Chapel Hill, N.C.), Duke University, B.S.E., 1973, M.S.E., 1974
Douglas Kirk Ways (Durham, N.C.), Bridgewater College, B.A., 1973
Wendell D'Alton Wells, Jr. (Greensboro, N.C.), A & T State University, B.S., 1975
Lynn Elise Wesson (High Point, N.C.), University of North Carolina, B.S., 1975
John Michael Westafer (Chapel Hill, N.C.), University of North Carolina, B.S., 1974
Mack Willis White III (Charlotte, N.C.), University of North Carolina, B.A., 1975
Claude Phillip Whitworth (Hickory, N.C.), University of North Carolina, A.B., 1975

Charles Warren Williams, Jr. (Charlotte, N.C.), Duke University, B.A., 1975
Dixon Caldwell Williams (Durham, N.C.), St. Andrews Presbyterian College, B.A., 1974
Larry Thomas Williams (Dunn, N.C.), USAF Academy, B.S., 1973
Robert Stanford Williams (Cary, N.C.), University of North Carolina, A.B., 1974
Leonard Shpack Wojnowich (Charlotte, N.C.), Duke University, B.S., 1974
Paul Richard Woodard (Raleigh, N.C.), University of North Carolina, B.S., 1971; North Carolina State University, M.S., 1973
Norman Francis Woodlief (Greensboro, N.C.), University of North Carolina, B.S., 1975
Ossian Barry Wynn (Charlotte, N.C.), University of North Carolina, A.B., 1975

SECOND YEAR CLASS

President: Michael Parker

Richard L. Agress (Winston-Salem, N.C.), University of North Carolina, B.A., 1974
Thellie R. Ainsley (Chapel Hill, N.C.), University of North Carolina, A.B., 1974
Michael Curtis Alston (Ahoskie, N.C.), University of North Carolina, B.A., 1974
Thomas R. Andrus, Jr. (Durham, N.C.), North Carolina State University, B.S., 1973
Janice E. Barron (Morganton, N.C.), Duke University, B.A., 1967
Edwin Clary Bartlett (Greenville, N.C.), East Carolina University, B.A., 1974
James J. Bedrick (Chapel Hill, N.C.), University of North Carolina, B.A., 1974
William L. Bell (Robbins, N.C.), University of North Carolina, B.A., 1974
John D. Benson (Chapel Hill, N.C.), University of North Carolina, B.S., 1974
Daniel J. Blake (Durham, N.C.), Guilford College, B.S., 1970; Duke University, Ph.D., 1974
Kyle S. Braxton (Burlington, N.C.), North Carolina State University, B.S., 1972; University of South Carolina, M.A.T., 1974
Edward K. Bridges (Chapel Hill, N.C.), University of North Carolina at Greensboro, B.A., 1973
Eugenia Brooks (Fairmont, N.C.), Pembroke State University, B.S., 1973
Jane C. Burns (San Francisco, Calif.), Wesleyan University, B.A., 1974
Albert D. Cain (Durham, N.C.), South Carolina State College, B.S., 1968
*Thomas Johnstone Campen (Charlotte, N.C.), Davidson College, B.S., 1973
Shelia J. Clark (Rocky Mount, N.C.), North Carolina State University, B.S., 1973
William G. Clark (Carrboro, N.C.), Davidson College, B.A., 1973
Brian J. Cohen (Whitestone, N.Y.), Harvard University, B.A., 1974
Cynthia Conrad (Columbia, S.C.), Connecticut College, B.A., 1970; University of North Carolina, Ph.D., 1974
Paul W. Coughlin (Asheville, N.C.), University of North Carolina, A.B., 1974
Gregory H. Crisp (Morganton, N.C.), Duke University, B.A., 1974
Mary B. Daly (Chapel Hill, N.C.), College of New Rochelle, B.A., 1965; University of North Carolina, M.P.H., 1971, Ph.D., 1973
John D. Davis, Jr. (Charlotte, N.C.), University of North Carolina, A.B., 1973
Joseph E. Deese (Maxton, N.C.), Pembroke State University, B.S., 1974
Victor F. Dickens (Garysburg, N.C.), Kenyon College, A.B., 1974
George T. Diferdinando (Chapel Hill, N.C.), Oberlin College, A.B., 1971
Thomas A. Dillard (High Point, N.C.), University of North Carolina, A.B., 1974
Forrest Ray Dolly (Raleigh, N.C.), University of North Carolina, B.A., 1974
Gregory L. Drake (Fayetteville, N.C.), Howard University, B.S., 1974
Allison J. Dudley (Chapel Hill, N.C.), Pomona College, A.B., 1971
George S. Edwards, Jr. (Raleigh, N.C.), Davidson College, B.S., 1974
Martha L. Elks (Scotland Neck, N.C.), Duke University, B.A., 1974

*Leave of absence, 1975-76.

Edward P. Entmacher (Chapel Hill, N.C.), S.U.N.Y., B.A., 1971
Susan D. Foreman (Wilmington, N.C.), University of North Carolina, B.A., 1974
William Varn Fowler (Winston-Salem, N.C.), East Carolina University, B.S., 1974
Don J. Fowls (Hamilton, Ohio), Dartmouth College, B.A., 1973
Chester D. Freeman (Belhaven, N.C.), Hampton Institute, B.A., 1974
Elizabeth Rhodes Gamble (Lincolnton, N.C.), University of North Carolina, B.A., 1971, M.S.P.H., 1972
John B. Gordon III (Chapel Hill, N.C.), University of Pennsylvania, B.A., 1974
Sandra L. Gordon (Durham, N.C.), Duke University, B.A., 1972; University of North Carolina, M.S., 1974
David Gore (Supply, N.C.), North Carolina A & T State University, B.S., 1974
Betty J. Hall (Winston-Salem, N.C.), University of North Carolina, B.A., 1974
Alfred L. Harkley (New Bern, N.C.), University of North Carolina, A.B., 1974
James Hubert Hawkins, Jr. (Alamance, N.C.), Davidson College, A.B., 1971; University of North Carolina, M.A., 1974
Seth V. Hetherington (Weston, Mass.), Yale University, B.S., 1974
Robert L. Hines (Rocky Mount, N.C.), Duke University, B.A., 1972; University of North Carolina, M.P.H., 1974
Theodore F. Hoffman, Jr. (Raleigh, N.C.), North Carolina State University, B.S., 1972
Michael Holland (Charlotte, N.C.), University of North Carolina, B.A., 1974
Cynthia Ruth Howard (Concord, N.C.), University of North Carolina at Greensboro, B.A., 1974
Ronald E. Hughes (Ridgecrest, N.C.), University of North Carolina at Greensboro, B.A., 1973
Kathryn Johnson (Greensboro, N.C.), University of North Carolina at Greensboro, B.A., 1973, M.A., 1974
Benjamin Jolley (Mars Hill, N.C.), Mars Hill College, B.S., 1973
Gregory Lee Jones (Greenville, N.C.), East Carolina University, B.S., 1974
Thomas L. Jones, Jr. (New Bern, N.C.), University of North Carolina, A.B., 1972
Constantine Aris Kargas (Beaver Dam, Wisc.), University of Michigan, B.S., 1971
Joseph Allen Keyes (Greenville, N.C.), East Carolina University, B.A., 1974
Jeanne-Ann Kramer (Pittsboro, N.C.), Oklahoma University, B.A., 1973
Thomas E. Lauer (High Point, N.C.), University of North Carolina at Greensboro, B.A., 1973
Andrew J. Leake (Lilesville, N.C.), Livingston College, B.S., 1974
Dorothy M. Linster (Walnut Cove, N.C.), Livingston College, B.S., 1974
Luisa Almedia Lorenzo (Boone, N.C.), Appalachian State University, B.A., 1974
Wade L. Lowry (Gastonia, N.C.), University of North Carolina, A.B., 1974
Jeffrey Alan Margolis (New Bern, N.C.), University of North Carolina, A.B., 1974
Charles Thomas Marston (Greenville, N.C.), University of North Carolina, B.A., 1971
Carol Ann Martin (Raleigh, N.C.), University of North Carolina, A.B., 1973
Dennis K. Martin (Chapel Hill, N.C.), North Carolina State University, B.S., 1973
Allen G. Mask (Hamlet, N.C.), University of North Carolina, A.B., 1974
Daniel L. Mattox (Fayetteville, N.C.), Davidson College, B.S., 1974
Marshall E. McCabe III (Europe), Duke University, B.A., 1974
Jeremy A. McCreary (Charlotte, N.C.), Duke University, B.S., 1970
John T. McElveen (Charlotte, N.C.), Davidson College, B.S., 1974
Charles Spruill McGaw (Windsor, N.C.), North Carolina State University, B.S., 1974
Wayne F. McNett (Chapel Hill, N.C.), VPI & State University, B.S., 1973
Lonnie W. Merrick (Wilmington, N.C.), University of North Carolina, B.A., 1974
William L. Miller (Durham, N.C.), Wake Forest University, B.A., 1971, M.A., 1974
William Ronald Moffitt (Hendersonville, N.C.), University of North Carolina, A.B., 1973
Alvah Price Monds (Hertford, N.C.), University of North Carolina, B.S., 1969
Mark D. Monson (Durham, N.C.), Davidson College, B.S., 1974
Peter J. Morris (Nassapequa, N.Y.), Georgetown University, B.A., 1974

Robert W. Newell (Matthews, N.C.), University of North Carolina, A.B., 1974
Cassandra F. Newkirk (Wilmington, N.C.), Duke University, B.A., 1973
James Evans Nicholson III (Wilmington, N.C.), University of North Carolina, A.B., 1974
David H. Ogburn (Statesville, N.C.), University of North Carolina, A.B., 1974
Karen S. Ogle (Raleigh, N.C.), Michigan State University, B.A., 1974
Arthur G. Osberg (Raleigh, N.C.), Wake Forest University, A.B., 1974
Michael Y. Parker (High Point, N.C.), University of North Carolina, B.A., 1973
Robert William Patterson (Sanford, N.C.), University of North Carolina, A.B., 1974
John B. Pecorak (Carrboro, N.C.), Davidson College, B.A., 1973
William Edward Perry (Kinston, N.C.), East Carolina University, A.B., 1974
Thomas L. Pope (Winton, N.C.), University of North Carolina, A.B., 1973
David C. Powell (Raleigh, N.C.), University of North Carolina, A.B., 1974
Donna L. Prather (Charlotte, N.C.), Queens College, B.A., 1968; University of North Carolina, M.A., 1974
Harvey C. Price (Smithfield, N.C.), University of North Carolina, A.B., 1974
John Van Buren Pruitt III (Hamlet, N.C.), University of North Carolina, A.B., 1974
John R. Rastall (Greenville, N.C.), Duke University, B.S.E., 1971; East Carolina University, M.A., 1974
Jon M. Regis (Fayetteville, N.C.), University of North Carolina, B.A., 1973, M.S., 1974
Richard L. Rumley (Reidsville, N.C.), University of North Carolina, B.A., 1972
Howard L. Russell (Semora, N.C.), North Carolina A & T State University, B.S., 1974
Peter A. Schlesinger (Great Neck, N.Y.), Amherst College, B.A., 1974
Deborah A. Scott (Greensboro, N.C.), University of North Carolina at Greensboro, B.A., 1974
Dianne L. Scott (Greensboro, N.C.), University of North Carolina at Greensboro, B.A., 1974
Stuart Charles Segerman (Jacksonville, N.C.), Johns Hopkins University, B.A., 1974
Daniel A. Shapiro (Raleigh, N.C.), North Carolina State University, B.S., 1973
Thomas L. Shea (Greenville, N.C.), University of North Carolina, B.A., 1973
Ronnie D. Smith (Chapel Hill, N.C.), University of North Carolina
Susan T. Snider (Durham, N.C.), Swarthmore College, B.A., 1969
William Duane Snider (Bridgeport, W.Va.), University of North Carolina, B.S., 1971
Alan D. Stiles (Canton, N.C.), University of North Carolina, B.A., 1974
Gregory Strayhorn (Pollocksville, N.C.), University of North Carolina, B.A., 1973
Robert W. Surratt (Rose Hill, N.C.), University of North Carolina, A.B., 1974
Nancy Teaff (Chapel Hill, N.C.), Princeton University, B.A., 1973
Barry H. Teasley (Durham, N.C.), University of North Carolina, A.B., 1973
Michael H. Thomason (Charlotte, N.C.), Davidson College, B.S., 1974
Michael W. Tilson (Graham, N.C.), University of North Carolina, A.B., 1974
*Charles Franklin Timmons, Jr. (Charlotte, N.C.), Davidson College, B.S., 1971
Gwendolyn F. Todd (Zebulon, N.C.), North Carolina Central University, B.S., 1973
John C. Trotter (Wake Forest, N.C.), University of North Carolina, A.B., 1974
Gregory H. Tuttle (Winston-Salem, N.C.), University of North Carolina, A.B., 1974
Donna S. Wagner (Carrboro, N.C.), Bucknell University, B.S., 1972
William A. Walker (Goldsboro, N.C.), University of North Carolina, B.A., 1974
Ralph L. Wall (Durham, N.C.), North Carolina Central University, B.S., 1974
Julius B. Walthall (Matthews, N.C.), University of North Carolina, B.A., 1974
David M. Warshauer (Wilmington, N.C.), Yale University, B.S., 1974
James S. Wells (Greenville, N.C.), Wake Forest University, B.S., 1974
Gary T. Whitlock (Carrboro, N.C.), Western Piedmont College, A.S., 1972; Lenior Rhyne College, B.S., 1974
Jean M. Whitmore (Kinston, N.C.), University of North Carolina, B.A., 1972

*Leave of absence, 1975-1976.

John P. Williams (Greensboro, N.C.), Guilford College, B.A., 1974
Kenny F. Willard (Winston-Salem, N.C.), University of North Carolina, B.S., 1972
Larry A. Wilson (Carrboro, N.C.), Oberlin College, B.A., 1971
Richard C. Worf (Cary, N.C.), University of North Carolina, B.S., 1974
Jesse Graham Yarborough, Jr. (Chapel Hill, N.C.), North Carolina State University, B.S., 1973

THIRD YEAR CLASS

President: William J. Fulkerson, Jr.
Vice-President: Scott Norwood
Secretary-Treasurer: Jerry Self

Alton R. Anderson (Smithfield, N.C.), North Carolina A & T State University, B.S., 1971
Evelyn M. Bargmann (Athens, Ga.), University of Georgia, B.S., 1973
Michael L. Barringer (Rockwell, N.C.), University of North Carolina, A.B., 1973
Mark W. Bennett, Jr. (Burnsville, N.C.), East Carolina University, B.S., 1973
John R. Black (Blowing Rock, N.C.), Amherst College, B.A., 1973
Deborah D. Boyd (Chapel Hill, N.C.), University of North Carolina, B.A., 1973
Jeffrey G. Brantley (Rocky Mount, N.C.), Davidson College, A.B., 1971
Clinton A. Briley, Jr. (Kinston, N.C.), East Carolina University, A.B., 1973
John W. Byers (Winston-Salem, N.C.), United States Military Academy, B.S., 1962
David L. Call (North Wilkesboro, N.C.), University of North Carolina, A.B., 1973
Elaine W. Coleman (Hayesville, N.C.), Carson-Newman College, B.S., 1971
John R. Collier, Jr. (Roanoke Rapids, N.C.), North Carolina State University, B.S., 1973
Francis S. Collins (Staunton, Va.), University of Virginia, B.S., 1970; Yale University, M.Phil., 1972
Wilson S. Comer, Jr. (Oxford, N.C.), Hampden-Sydney College, B.S., 1972
Ronald P. Conoley (Wendell, N.C.), Davidson College, B.S., 1973
Rafael F. Coutin (Chapel Hill, N.C.), University of North Carolina, A.B., 1973
Cecil V. Crabb (Baton Rouge, La.), Oberlin College, B.A., 1973
Joseph E. Craft (Saratoga, N.C.), University of North Carolina, A.B., 1973
Joan A. Cummings (Gibsonville, N.C.), North Carolina A & T University, B.S., 1971
Allen J. Daugird (Charlotte, N.C.), University of North Carolina, B.A., 1973
Meyer E. Dworsky (Oxford, N.C.), University of North Carolina, B.A., 1970
Larry D. Eggert (Newport, N.C.), University of North Carolina, A.B., 1973
Randy S. Ellis (Spruce Pine, N.C.), University of North Carolina at Asheville, B.A., 1971
Lee B. Eure (Gatesville, N.C.), University of North Carolina, A.B., 1972
Ronald J. Falk (Chapel Hill, N.C.), Dartmouth College, B.A., 1973
Joseph C. Fesperman, Jr. (Stanley, N.C.), University of North Carolina, B.A., 1973
Wayne D. Fogle (Carrboro, N.C.), University of North Carolina, B.S., 1970, M.A., 1973
Arthur L. Fritz (Chapel Hill, N.C.), University of North Carolina, B.S., 1971
Gerald A. Fromson (Monsey, N.Y.), University of Pennsylvania, B.A., 1973
William J. Fulkerson, Jr. (Hickory, N.C.), University of North Carolina, A.B., 1973
Boyd B. Gasque, Jr. (Charlotte, N.C.), University of North Carolina, A.B., 1973
James R. Goins (Charlotte, N.C.), Duke University, B.A., 1973
James O. Goldman (Pittsboro, N.C.), University of North Carolina, B.S., 1973
Richard D. Grady (Seven Springs, N.C.), Davidson College, B.S., 1973
Pearly B. Graham (Riegelwood, N.C.), Howard University, B.S., 1973
Uril C. Greene (Goldsboro, N.C.), East Carolina University, B.S., 1973
Sandra L. Griffin (Rocky Mount, N.C.), University of California at Riverside, B.A., 1970
Peter C. Gruenberg (High Point, N.C.), Carleton College, B.A., 1973

William Boyd Harden (Greensboro, N.C.), Davidson Community College, A.A., 1971; University of North Carolina at Greensboro, B.A., 1973
James B. Hardin (Pembroke, N.C.), Pembroke State University, B.S., 1965
Robert M. Harris (Raleigh, N.C.), North Carolina State University, M.S., 1972
Pamela N. Hartley (Durham, N.C.), Brown University, B.A., 1969
David C. Henke (Chapel Hill, N.C.), University of Maryland, B.S., 1969; University of North Carolina, M.P.H., 1973
Douglas E. Henley (Hope Mills, N.C.), University of North Carolina, A.B., 1973
George W. Henry (Dunn, N.C.), University of North Carolina, A.B., 1973
Marianna Henry (Greensboro, N.C.), University of North Carolina, B.A., 1973
Katherine High (Kernersville, N.C.), Radcliffe University, A.B., 1972
Alan Scudder Hollister (Chapel Hill, N.C.), Swarthmore, B.A., 1970
James B. Holt (Burlington, N.C.), Davidson College, B.S., 1967
Charles H. Hoover III (Lincolnton, N.C.), University of North Carolina, A.B., 1973
Gary F. Irons III (Greenville, N.C.), University of North Carolina, A.B., 1972
William L. Isley (Greensboro, N.C.), University of North Carolina, A.B., 1973
Henry D. Jefferson, Jr. (Farmville, N.C.), University of North Carolina, B.S., 1972
George Johnson (Hendersonville, N.C.), Hope College, B.A., 1973
Wade Thomas Jordan (Rocky Mount, N.C.), University of North Carolina, A.B., 1973
Ronnie S. Joyner (New Bern, N.C.), East Carolina University, M.A., 1970
Michael Karr (Jacksonville, N.C.), East Carolina University, B.A., 1973
Saundra A. Kendall (High Point, N.C.), Howard University, B.S., 1972
Lester L. Key, Jr. (Hickory, N.C.), University of North Carolina, B.A., 1973
Michael E. King (Greensboro, N.C.), Hampden-Sydney College, B.S., 1969
Judith M. Kramer (Chapel Hill, N.C.), University of North Carolina, B.S., 1970, M.S., 1972
Paul H. Kramer (South Miami, Fla.), University of Chicago, B.A., 1973
Gary R. Krieger (Statesville, N.C.), University of North Carolina, A.B., 1973
Albert K. Kuhne (Bakersville, N.C.), Berea College, B.A., 1971; North Carolina State University, M.S., 1973
Ann D. Latimer (Chapel Hill, N.C.), Winthrop College, B.A., 1969
Frederick H. Mabry, Jr. (Laurinburg, N.C.), University of North Carolina, A.B., 1972
William H. Marsh (Charlotte, N.C.), University of North Carolina, A.B., 1973
Donald P. McCurdy (Greensboro, N.C.), University of North Carolina at Greensboro, B.A., 1973
Thomas M. Miller (Chapel Hill, N.C.), Oberlin College, B.A., 1973
Stephen R. Mitchell (Shelby, N.C.), University of North Carolina, B.A., 1973
David H. Moore (Charlotte, N.C.), University of North Carolina at Charlotte, B.S., 1973
Warren H. Moore (Charlotte, N.C.), University of North Carolina, A.B., 1973
Herman G. Morgan, Jr. (Charlotte, N.C.), University of North Carolina, B.S., 1973
Peter S. Morrison (Chapel Hill, N.C.), University of North Carolina, A.B., 1973
Calvin F. Morrow, Jr. (Greensboro, N.C.), Hampton Institute, B.A., 1973
Robert L. Munt, Jr. (Winston-Salem, N.C.), Washington and Lee University, B.S., 1973
Steven R. Nesheim (Gastonia, N.C.), University of North Carolina, A.B., 1973
Jack W. Noneman, Jr. (Raleigh, N.C.), University of North Carolina, A.B., 1973
Scott H. Norwood (Chapel Hill, N.C.), University of North Carolina, A.B., 1973
Gretchen S. Okiye (Durham, N.C.), North Carolina Central University
Benjamin W. Page (Durham, N.C.), North Carolina State University, B.S., 1973
James B. Patterson (Chapel Hill, N.C.), Appalachian State University, B.S., 1966; University of North Carolina, Ph.D., 1971
Melinda C. Paul (Kingsport, Tenn.), University of North Carolina, A.B., 1973
Ruth C. Penn (Greensboro, N.C.), Morris Brown College
Petya L. Perkins (Atlanta, Ga.), University of North Carolina, B.A., 1969, M.A., 1971
Louis M. Perlmutt (Chapel Hill, N.C.), University of North Carolina, A.B., 1971
Steven Piantadosi (Chapel Hill, N.C.), University of North Carolina, A.B., 1973

Jesse C. Pittard (Durham, N.C.), Duke University, B.S., 1973
Michael L. Pool (Birmingham, Ala.), University of North Carolina, A.B., 1973
Duncan S. Postma (Chapel Hill, N.C.), Davidson College, B.S., 1971
Robert B. Price (Raleigh, N.C.), North Carolina State University, B.S., 1973
Craig P. Prokos (Durham, N.C.), University of Miami, B.S., 1968
David L. Putnam (Asheville, N.C.), University of North Carolina, A.B., 1973
Catherine M. Radovich (Chapel Hill, N.C.), Duke University, B.A., 1972
Keith M. Ramsey (Sylva, N.C.), Western Carolina University, B.S., 1973
Gloria M. Rapoport (Asheville, N.C.), Cornell University, B.A., 1973
Leighton A. Raynor (Apex, N.C.), University of North Carolina, A.B., 1973
Janifer C. Roberts (Lumberton, N.C.), Shaw University, B.S., 1969
Ronald W. Roberts (Chapel Hill, N.C.), Case Western Reserve, B.S., 1965, M.S., 1968, Ph.D., 1969
Lee R. Rocamore (Asheville, N.C.), Duke University, B.S., 1973
William H. Ryan III (Chapel Hill, N.C.), Davidson College, B.S., 1972
Samuel T. Selden (Chapel Hill, N.C.), University of North Carolina, B.A., 1967
Jerry L. Self (Casar, N.C.), North Carolina State University, B.S., 1964; Pennsylvania State University, M.S., 1968
Pamela B. Shirley (Cary, N.C.), University of North Carolina, B.S., 1973
Sally C. Shu (Charlotte, N.C.), University of North Carolina, 1972
Charles G. Smith (Concord, N.C.), University of North Carolina, A.B., 1972
Ellen B. Smith (Greensboro, N.C.), St. Mary's Jr. College, A.A., 1971; University of North Carolina at Greensboro, B.A., 1973
John B. Smith, Jr. (Deep Run, N.C.), North Carolina State University, M.S., 1973
Lewis E. Speagle (Shelby, N.C.), University of North Carolina, A.B., 1972
Howard J. Stang (Greensboro, N.C.), University of North Carolina, A.B., 1973
John H. Stanley (Bladenboro, N.C.), University of North Carolina, A.B., 1973
Vaughn A. Starnes (Granite Falls, N.C.), University of North Carolina, B.A., 1973
John G. Steel (Chapel Hill, N.C.), Washington and Lee University, B.S., 1973
George A. Stoudemire (Lincolnton, N.C.), University of North Carolina, A.B., 1973
Mathai S. Thomas (Charlotte, N.C.), North Carolina State University, B.S., 1967, M.S., 1970
Kenneth M. Twiddy (Canton, N.C.), Wake Forest University, B.S., 1972
Bobbie J. Veasey (Aberdeen, N.C.), University of North Carolina, B.S., 1973
John C. Vick (Monroe, N.C.), University of North Carolina, B.A., 1973
Michael M. Ward (Lincolnton, N.C.), University of North Carolina, A.B., 1973
Richard H. Weisler (Salisbury, N.C.), Tulane University, B.S., 1972
Anthony H. Wheeler (Chapel Hill, N.C.), University of North Carolina, A.B., 1973
Michael S. Wheeler (Blacksburg, Va.), Davidson College, B.S., 1973
Joseph L. Williams (Greenville, N.C.), East Carolina University, B.S., 1972
Richard K. Wilson (Wilmington, N.C.), Davidson College, B.S., 1973
Elsie Elizabeth Winstead (Chapel Hill, N.C.), East Carolina University, B.S.M.T., 1973
Christopher M. Wise (Cincinnati, Ohio), University of North Carolina, B.S., 1973
Phillip C. Wood (Zebulon, N.C.), Duke University, A.B., 1973
Edward Louis Woods (Durham, N.C.), North Carolina College, B.S., 1961; N.C. Central, M.S., 1970
Wayne G. Woods (Kannapolis, N.C.), North Carolina A & T University, B.S., 1967

FOURTH YEAR CLASS

President: Robert Shapiro
Vice-President: Richard N. Duffy III
Secretary: Charles Hicks
Treasurer: Harold Cable

Brenda L. Adams (Gastonia, N.C.), University of North Carolina at Greensboro, B.A., 1972
Kirkwood F. Adams, Jr. (Roanoke Rapids, N.C.), Duke University, B.S., 1972
Warwick Aiken III (Carrboro, N.C.), University of North Carolina, B.S., 1971
Patricia Anne Aronin (Chapel Hill, N.C.), Manhattanville, A.B., 1969
Paul D. Barry (Shelby, N.C.), Duke University, A.B., 1971
Robert R. Bass (Burlington, N.C.), University of North Carolina, A.B., 1972
Wallace B. Bateman, Jr. (Charlotte, N.C.), University of North Carolina, A.B., 1972
Martin F. Beals, Jr. (Elizabeth City, N.C.), University of North Carolina, A.B., 1972
James C. Beard (Portland, Oregon), Yale College, B.A., 1972
Robert G. Berger (Scotch Plains, N.J.), Yale College, B.S., 1972
William Jackson Blackley (Dunn, N.C.), University of North Carolina, A.B., 1971
Jean C. Bolan (Rhodhiss, N.C.), University of North Carolina, B.S., 1972
Alexis Bouteneff (Chapel Hill, N.C.), Duke University, B.S., 1972
Richard A. Bowerman (Chapel Hill, N.C.), University of North Carolina, B.S., 1972
*Gwendolyn M. Boyd (Albemarle, N.C.), University of North Carolina at Greensboro, B.S., 1970
John J. Brantley II (Roanoke Rapids, N.C.), University of North Carolina, A.B., 1972
Sabra Alderman Bray (Chapel Hill, N.C.), University of North Carolina, A.B., 1972
Jack P. Byrd (Dunn, N.C.), University of North Carolina, A.B., 1972
Harold F. Cable (Hendersonville, N.C.), University of North Carolina, A.B., 1972
Edward C. Cameron (Carrboro, N.C.), Harvard College, B.A., 1968
Barbara J. Campbell (Greensboro, N.C.), University of Maryland, B.S., 1972
John J. Cannell (Annapolis, Md.), University of Maryland, B.S., 1972
Marjorie Rhodes Carr (Kinston, N.C.), University of North Carolina, B.S., 1971
Cornelius F. Cathcart (Chapel Hill, N.C.), University of North Carolina, A.B., 1972
Edward L. Cattau, Jr. (Chapel Hill, N.C.), University of North Carolina, B.A., 1971
Nancy E. Chaney (Carrboro, N.C.), University of California, Berkeley, A.B., 1968
James W. Cockerill (Gastonia, N.C.), University of North Carolina at Charlotte, B.A., 1972
Connell Covington (Rockingham, N.C.), North Carolina Central University, B.S., 1972
Janet K. Cybrynski (Greensboro, N.C.), Guilford College, B.S., 1972
Leon D. Davis (Wilmington, N.C.), University of North Carolina at Wilmington, B.S., 1972
James B. Williams DeTorre (Albemarle, N.C.), University of North Carolina, B.A., 1971
Robyn J. Dorsey (Greensboro, N.C.), University of Rochester, B.A., 1972
Richard N. Duffy III (Knoxville, Tenn.), University of North Carolina, B.S., 1972
Susan T. Edwards (Whiteville, N.C.), University of North Carolina, B.S., 1971
Stephen E. Erlandson (Charlotte, N.C.), Davidson College, B.S., 1972
Catherine J. Everett (Robersonville, N.C.), Duke University, A.B., 1972
Steven J. Feagin (Durham, N.C.), Duke University, B.S., 1972
Richard T. Fritz (Ossining, N.Y.), University of North Carolina, A.B., 1972
Kathleen A. Gallagher (Durham, N.C.), Georgetown University, B.S.; Duke University, M.A.
William H. Gamble (Greensboro, N.C.), Rutgers College, B.A., 1972
Raymond A. Gaskins, Jr. (Ayden, N.C.), University of North Carolina, A.B., 1971

*Leave of absence, 1975-76.

Ronald W. Gerbe (Durham, N.C.), Duke University, A.B., 1968
Gary H. Greenspan (Larchmont, N.Y.), Haverford College, B.A., 1972
Rita L. Gunter (Sanford, N.C.), North Carolina Central University, B.S., 1972
Joseph R. Haskett, Jr. (Hertford, N.C.), University of North Carolina, A.B., 1971
Linn H. Hatley (Raleigh, N.C.), University of North Carolina, B.S., 1972
Elizabeth Anne Colclough Hawes (Elon College, N.C.), University of North Carolina, B.A., 1972
Stephen J. Hawes, Jr. (Charlotte, N.C.), University of North Carolina, A.B., 1972
Charles H. Hicks (Raleigh, N.C.), University of North Carolina, A.B., 1972
John L. Hoffer (Chapel Hill, N.C.), LeTourneau College, B.S., 1955
David H. Hopper (Montreat, N.C.), Kings College, B.S., 1972
Thomas Warner Hudson III (Greensboro, N.C.), Washington and Lee, B.S., 1971
Billy Ray Hunter (Raleigh, N.C.), St. Augustine's College, B.S., 1969
Robert H. Hutchins (Spencer, N.C.), University of North Carolina, A.B., 1972
George D. Jacobs (Gastonia, N.C.), Clemson University, B.S., 1972
Stephanie A. Jaeger (Tryon, N.C.), University of North Carolina at Greensboro, B.A., 1972
Frielden B. Jones III (Forest City, N.C.), Davidson College, B.S., 1972
Jo Ann Jones (Prince Georges, Md.), University of North Carolina at Greensboro, B.A., 1970
Joseph M. Konde (Congo, Africa), St. Augustine's College, B.S., 1972
David M. Larsen (Greenville, N.C.), Austin Peay State University, B.S., 1970
Kenneth D. Lempert (Chapel Hill, N.C.), Rutgers University, B.S., 1969; University of North Carolina, M.S.P.H., 1972
Benjamin F. Lewis (Farmville, N.C.), University of North Carolina, B.S. in Medicine, May 1973
Adrian Long (Pfafftown, N.C.), Davidson College, B.S., 1972
Walker A. Long (Smithfield, N.C.), University of North Carolina, A.B., 1971
Stephen B. Lowe (Greensboro, N.C.), Emory University, B.A., 1972
Ross D. Lynch (Greensboro, N.C.), University of Virginia, B.A., 1972
Rubin F. Maness (Greensboro, N.C.), University of North Carolina at Greensboro, B.A., June 1972
Gloria Manley (Aulander, N.C.), Hampton Institute, B.A., 1972
Thomas C. Markham (Charlotte, N.C.), Duke University, B.A., 1972
Karen S. McCoy (Pittsboro, N.C.), Florida Presbyterian College, B.S., 1971
McKay McKinnon (Wadesboro, N.C.), University of North Carolina, A.B., 1971
John H. McMurray (Morganton, N.C.), University of Colorado, B.A., 1971
Michael E. Miller (Hendersonville, N.C.), Emory University, B.A., 1972
Bennett E. Mitchell (Rich Square, N.C.), North Carolina A & T State University, B.S., 1969
Benjamin D. Morton III (Winston-Salem, N.C.), Davidson College, B.S., 1972
Robert S. Moskalik (Chapel Hill, N.C.), University of Michigan, B.S., 1965
Charles F. Murray, Jr. (Wagram, N.C.), University of North Carolina, A.B., 1968
Elmer P. Nance, Jr. (Lexington, N.C.), University of North Carolina, B.S. in Medicine, May 1973
Louis A. Nassef (Washington, N.C.), University of North Carolina, A.B., 1972
David B. Neeland (Wilson, N.C.), University of Kentucky, B.S., 1972
Harold A. Nichols (Hallsboro, N.C.), North Carolina A & T State University, B.S., 1972
Adetenji Okunyade (Elizabeth City, N.C.), Elizabeth City State University, B.S., 1971
Mary L. Osborne (Fletcher, N.C.), University of North Carolina, A.B., 1972
James S. Parsone (Cary, N.C.), North Carolina State University, B.S., 1972
Vincent A. Paul (Kingsport, Tenn.), University of North Carolina, B.S. in Medicine, May 1973
Charles V. Pope (Mooresville, N.C.), Davidson College, B.S., 1972
Douglas C. Privette (Havelock, N.C.), East Carolina University, B.S., 1972

Samuel H. Rakestraw (Reidsville, N.C.), University of North Carolina, B.S., 1972
John W. Rand (Chapel Hill, N.C.), University of North Carolina, A.B., 1971
Sheldon M. Retchin (Wilmington, N.C.), University of North Carolina, B.A., 1972
William A. Richey (Chapel Hill, N.C.), University of North Carolina, B.S., 1972
Gary H. Riggs (Winterville, N.C.), Davidson College, B.S., 1972
Harry G. Robertson (Mt. Airy, N.C.), University of North Carolina, A.B., 1971
Linda M. Robinson (Coats, N.C.), Campbell, B.S., 1971
Jimmy L. Rodden (Winston-Salem, N.C.), University of North Carolina, B.S., 1969; Johns Hopkins University, M.S., 1971
Tate M. Rogers (Chapel Hill, N.C.), University of North Carolina, A.B., 1966
William D. Routh (Franklinville, N.C.), North Carolina State University, B.S., 1972
Donald B. Russ (Fayetteville, N.C.), University of North Carolina, A.B., 1970
Paul J. Saenger (Asheville, N.C.), University of North Carolina, B.A., 1972
Tamara L. Sanderson (Durham, N.C.), University of North Carolina, M.S.P.H., 1971
Howard S. Schub (Merrick, N.Y.), Cornell University, A.B., 1971
Robert S. Shapiro (Matthews, N.C.), University of North Carolina, A.B., 1972
David F. Silver (Carrboro, N.C.), William and Mary, B.S., 1971
Thomas L. Speros (Maxton, N.C.), Duke University, B.A., 1972
Michael D. Spital (Greensboro, N.C.), Tufts University, B.S., 1972
Paul V. Stankus (Durham, N.C.), University of North Carolina, B.S. in Medicine, 1973
Grady M. Stone (King, N.C.), University of North Carolina, B.S., 1971
Edwin R. Swann (Roxboro, N.C.), University of North Carolina, B.S., 1971
Ronnie E. Swift (New York, N.Y.), City College of N.Y., B.S., 1969
Robert J. Tallaksen (Raleigh, N.C.), North Carolina State University, B.A., 1969
Rufus H. Temple (Kinston, N.C.), Davidson College, B.S., 1968
Fronis R. Thigpen (Fair Bluff, N.C.), University of North Carolina, B.A., 1968
Robert S. Tomsick (Cleveland, Ohio), Kenyon, B.A., 1971
John W. Uribe (Wynnewood, Pa.), The Citadel, B.S., 1969
Renee P. Visco (City Island, N.Y.), New York University, B.A., 1969
Franklin B. Waddell (Durham, N.C.), Duke University, B.S., 1972
Lewis P. Warren, Jr. (Raleigh, N.C.), University of North Carolina, B.S., 1970
George Waterhouse (Charlotte, N.C.), University of the South, B.A., 1971
Linnea L. Weblemoe (Chapel Hill, N.C.), Whittier College, A.B., 1967
Ray A. Wertheim (Fayetteville, N.C.), University of North Carolina, A.B., 1972
Susanne T. White (Chapel Hill, N.C.), Bennett College, B.S., 1971
Mark E. Williams (Roanoke Rapids, N.C.), University of North Carolina, A.B., 1972
Ronald L. Williams (Fayetteville, N.C.), Davidson College, B.S., 1972
Moses E. Wilson, Jr. (Durham, N.C.), North Carolina Central University, B.S., 1971
Richard Wing (Charlotte, N.C.), University of North Carolina, M.S.P.H., 1972
Carol E. Wratten (Maxwell AFB, Ala.), University of North Carolina, A.B., 1972
Solomon G. Zerden (Chapel Hill, N.C.), University of North Carolina, A.B., 1971