

1985

## Bulletin of the University of Nebraska: Annual Catalog of the College of Medicine, 1985-1986

University of Nebraska Medical Center

Tell us how you used this information in this [short survey](#).

Follow this and additional works at: [https://digitalcommons.unmc.edu/bulletin\\_com](https://digitalcommons.unmc.edu/bulletin_com)



Part of the [History Commons](#), and the [Medical Education Commons](#)

---

### Recommended Citation

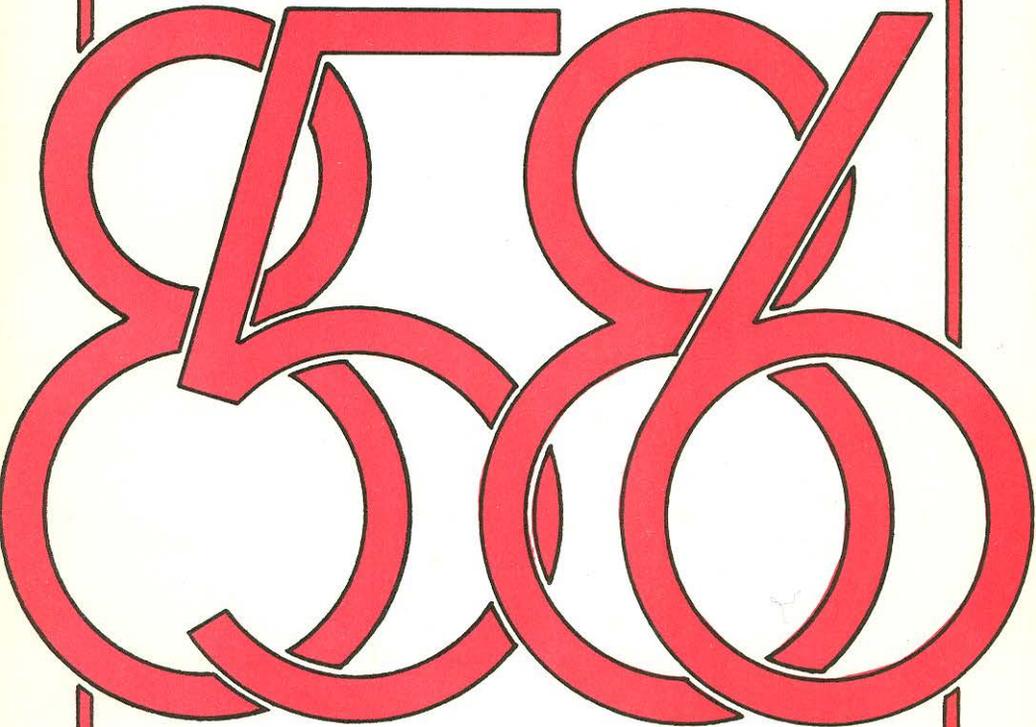
University of Nebraska Medical Center, "Bulletin of the University of Nebraska: Annual Catalog of the College of Medicine, 1985-1986" (1985). *Bulletin of the University of Nebraska: Annual Catalog of the College of Medicine*. 80.

[https://digitalcommons.unmc.edu/bulletin\\_com/80](https://digitalcommons.unmc.edu/bulletin_com/80)

This Book is brought to you for free and open access by the Bulletins and Catalogs at DigitalCommons@UNMC. It has been accepted for inclusion in Bulletin of the University of Nebraska: Annual Catalog of the College of Medicine by an authorized administrator of DigitalCommons@UNMC. For more information, please contact [digitalcommons@unmc.edu](mailto:digitalcommons@unmc.edu).

 University  
of Nebraska  
Medical Center

college of  
medicine  
bulletin *[of the]*



---

# ACADEMIC CALENDAR 1985-1986

---

## SEMESTERS

First Semester	August 26 – December 18, 1985
Second Semester	January 6 – May 3, 1986
May Term	May 5 – May 24, 1986

## CLERKSHIP PERIODS

1A July	July 8 – August 4, 1985
1B August	August 5 – September 1, 1985
2A September	September 3 – September 29, 1985
2B October	September 30 – October 27, 1985
3A November	October 28 – November 24, 1985
3B December	November 25 – December 20, 1985
4A January	January 6 – February 2, 1986
4B February	February 3 – March 2, 1986
5A March	March 3 – March 30, 1986
5B April	April 7 – May 4, 1986
6A May	May 5 – June 1, 1986
6B June	June 2 – June 29, 1986

APRIL IS LAST SENIOR ROTATION

## RECESSES AND HOLIDAYS

Independence Day	July 4, 1985
Labor Day	September 2, 1985
Thanksgiving (Clinical)	November 28, 1985
Thanksgiving (Pre-Clinical)	November 28-29, 1985
Winter Recess (Clinical)	December 21, 1985 – January 5, 1986
Winter Recess (Pre-Clinical)	December 19, 1985 – January 5, 1986
Spring Recess (Clinical)	March 31 – April 6, 1986
Spring Recess (Pre-Clinical)	March 23 – March 30, 1986
Memorial Day	May 26, 1986
Summer Recess (Clinical)	June 30 – July 6, 1986

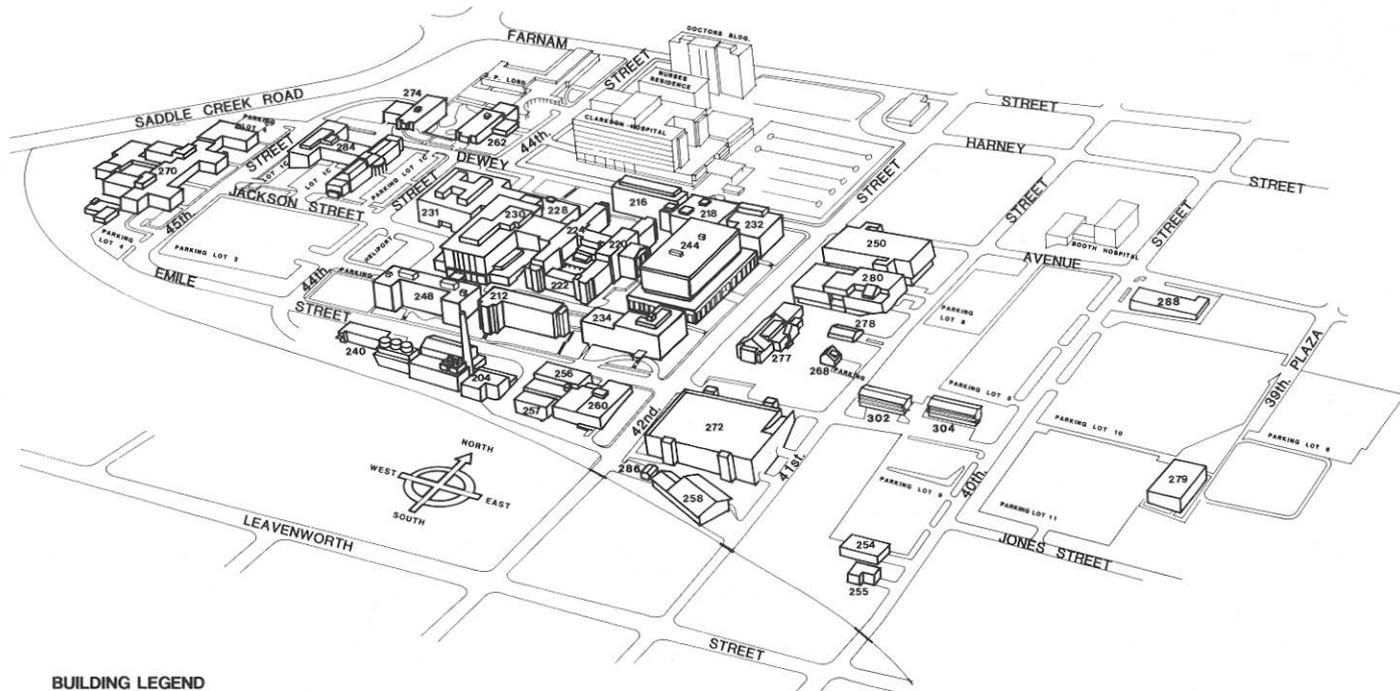
## SPECIAL EVENTS

Freshman Orientation	August 22-23, 1985
Clinical Comprehensive	November 22, 1985
Honors Convocation	May 10, 1986 (Graduating Seniors)
Commencement	May 11, 1986
National Board Exams, Part I	June 11-12, 1985; September 4-5, 1985
National Board Exams, Part II	April 2-3, 1985; September 18-19, 1985
Conjoint Examinations	September 21, 1985; October 19, 1985;* November 16, 1985; December 18, 1985;* February 1, 1986; March 1, 1986;* April 5, 1986; May 3, 1986*

\*Sophomore dates

Freshmen — all dates

# UNIVERSITY OF NEBRASKA MEDICAL CENTER



## BUILDING LEGEND

204 Central Utilities Building  
212 Conkling Hall  
216 Epley Cancer Institute  
218 Epley Science Hall  
220 Hospital Unit 1  
222 Lions Eye Institute  
224 Hospital Unit 2  
228 Hospital Unit 3  
230 Hospital Unit 4

231 University Clinic  
232 Poynter Hall  
234 South Laboratory  
240 Shackelford Laboratory  
244 Wittson Hall  
248 Specialty Services Pavilion  
250 College of Nursing  
254 Transportation Building  
255 Transportation Building

256 Service Building  
257 Maintenance Shop  
258 Warehouse  
260 Laundry  
262 Meyer Children's Rehabilitation Institute  
268 Human Genetics  
270 Nebraska Psychiatric Institute  
272 Parking Structure (Lot 7)  
274 Hattie B. Munroe Pavilion

277 Administration Building  
278 Lunchbox (Satellite Cafeteria)  
279 Gymnasium  
280 College of Pharmacy  
284 Swanson Center  
286 Thrift Shop  
288 Educational Therapy Clinic  
302 Student Apartments  
304 Student Apartments



# CONTENTS

---

ACADEMIC CALENDAR 1985-86	Inside Front Cover
GOVERNANCE OF THE UNIVERSITY OF NEBRASKA	6
COLLEGE OF MEDICINE ADMINISTRATION	7
THE UNIVERSITY OF NEBRASKA	10
GENERAL INFORMATION	12
LEARNING FACILITIES	14
ADMISSIONS	15
CURRICULUM	20
EVALUATION OF STUDENT PERFORMANCE	29
REQUIREMENTS FOR GRADUATION	31
GENERAL POLICIES	32
FEES AND EXPENSES	336
FINANCIAL ASSISTANCE	37
DEPARTMENTS OF INSTRUCTION	41

---

## To Present and Future Physicians

Many people speak with pessimism regarding the current situation in American medicine. While I do not agree with the gloomy picture painted by these individuals, I do recognize and understand the basis for these feelings: A supposed physician “glut”, loss of respect for the medical profession, increasing bureaucracy, decreasing financial reward, etc.

I think it is important to remember, however, that ministering to the bodies and minds of people, i.e., the medical profession, along with ministering to their souls (the clergy), is generally recognized as the most respected, and highest, “calling”. I also believe that there can never be too many good physicians.

The responsibility of the University of Nebraska College of Medicine is to assist in the provision of health care for Nebraska through the education of health professionals.

The University of Nebraska is dedicated to preparing men and women in the health professions. Candidates of moral integrity and a willingness to work, who are well-suited for post-collegiate academic study, can apply for admission to the College of Medicine. Reasonable academic competence is necessary and high motivation is of even greater importance.

The purpose of the College of Medicine is to provide an organized high quality program of health education, service and research addressed to the needs of the citizens of the State of Nebraska.

The goals of the College of Medicine are as follows:

1. To provide high quality education in humanistic and scientific medicine for those students who aspire to the health professions in Nebraska, specifically medical students, house officers, allied health professions students, graduate college students, and continuing education students;
2. To encourage the recruitment and retention of qualified health professionals in the State of Nebraska;
3. To develop and maintain a sharing of educational resources with communities and health professionals in the State of Nebraska;
4. To provide high quality primary care programs for the citizens of the State of Nebraska consistent with educational programmatic needs and in concert with other health institutions, agencies and professionals;
5. To provide high quality tertiary care programs relevant to education and research and responsive to the needs of the citizens of the State of Nebraska, consistent with responsible regional and state health planning;
6. To develop and foster both clinical and basic health science research in the pursuit of scientific excellence and human needs;
7. To seek and develop resources that will enable the College of Medicine to respond to current and future educational, service and research needs and opportunities;

8. To provide appropriate financial, professional and intellectual rewards to remain competitive in order to attract and retain highly qualified faculty and staff;
9. To participate in the formulation of health policy at local, state, regional, and national levels in support of high quality health care for the citizens of the State of Nebraska.

I hope you find the bulletin of interest. Feel free to call or write this office for any additional information.

Robert H. Waldman, M.D.  
*Dean*



---

# GOVERNANCE OF THE UNIVERSITY OF NEBRASKA

---

<b>The Board of Regents</b>	<b>Term Expires</b>
Donald C. Fricke, D.D.S. . . . .	January 1, 1991
Kermit Hansen, Elkhorn . . . . .	January 1, 1991
Nancy Hoch, Nebraska City . . . . .	January 1, 1989
Robert R. Koefoot, M.D., Grand Island . . . . .	January 1, 1989
James H. Moylan, Omaha . . . . .	January 1, 1989
John W. Payne, Kearney, Chairman . . . . .	January 1, 1987
Margaret Robinson, Norfolk . . . . .	January 1, 1989
Robert G. Simmons, Jr., Scottsbluff . . . . .	January 1, 1987
Michael A. DeBolt, UNO . . . . .	December 31, 1985
Gerard Keating, UNL . . . . .	March 30, 1986
Susanne M. Scott, UNMC . . . . .	December 31, 1985
William F. Swanson, Lincoln, Corporation Secretary	

## **University of Nebraska Central Administration**

Ronald W. Roskens, Ph.D., President  
Howard W. Ottosen, Ph.D., Executive Vice President and Provost  
Alan Seagren, Ed.D., Vice President for Administration  
William F. Swanson, B.S., Vice President for Governmental Relations

## **University of Nebraska Medical Center Administration**

Charles E. Andrews, M.D., Chancellor  
William O. Berndt, Ph.D., Vice Chancellor for Academic Affairs  
Brent R. Stevenson, Vice Chancellor for Business and Finance  
Robert H. Waldman, Dean, College of Medicine  
Arthur A. Nelson, Jr., Ph.D., Dean, College of Pharmacy  
Rosalee C. Yeaworth, Ph.D., Dean, College of Nursing  
William O. Berndt, Ph.D., Dean, Graduate Studies and Research  
Bruce A. Buehler, M.D., Director, Meyer Children's Rehabilitation  
Institute  
Edward Bresnick, Ph.D., Director, Eugene C. Eppley Institute  
Robert J. Baker, M.B.A., Director, University Hospital and Clinic  
William F. Gust, M.D., Interim Director, Center for  
Continuing Education  
Delmer D. Lee, B.S., Assistant Vice Chancellor, Business and Finance  
Arnold J. Menning, Ph.D., Director, Student Services  
James A. Stakenas, M.M.E., Ph.D., Director, Academic Records/  
Special Programs  
Robert D. Bartee, Executive Assistant to the Chancellor  
Reba A. Benschoter, Ph.D., Director, Biomedical Communications  
Robert M. Braude, M.L.S., Library of Medicine  
Robert T. Fredlund, B.A., Director, Financial Aids

---

## COLLEGE OF MEDICINE

---

Robert H. Waldman, M.D., Dean, College of Medicine  
Robert T. Binhammer, Ph.D., Associate Dean, Academic Affairs  
Charles A. Dobry, M.D., Associate Dean, Clinical Affairs  
Irene Klintberg, Ph.D., Associate Dean, Administration  
John J. Matoole, M.D., Associate Dean, Veterans' Affairs  
Frederick F. Paustian, M.D., Associate Dean, Graduate and Continuing  
Medical Education  
Reba A. Benschoter, Ph.D., Associate Dean, Allied Health Professions  
Robert S. Wigton, M.D., Assistant Dean, Graduate Medical Education  
Leon B. Ellwein, Ph.D., Associate Dean, Research and Development

### Department Chairmen

#### **Anatomy**

William K. Metcalf, M.D.

#### **Anesthesiology**

K. Reed Peters, M.D. (Interim)

#### **Biochemistry**

Kirk C. Phares, Ph.D. (Acting)

#### **Family Practice**

Robert L. Bass, M.D.

#### **Internal Medicine**

Michael F. Sorrell, M.D.

#### **Medical Jurisprudence and Humanities**

Ruth B. Purtilo, Ph.D.

#### **Neurology**

Donald R. Bennett, M.D.

#### **Neurosurgery**

F. Miles Skultety, M.D., Ph.D.

#### **Obstetrics and Gynecology**

Joseph C. Scott Jr., M.D.

#### **Ophthalmology**

Raymond E. Records, M.D.

#### **Orthopaedic Surgery and Rehabilitation**

John F. Connolly, M.D.

#### **Otolaryngology**

Anthony J. Yonkers, M.D.

#### **Pathology and Microbiology**

David T. Purtilo, M.D.

#### **Pediatrics**

Carol R. Angle, M.D.

#### **Pharmacology**

Manuchair S. Ebadi, Ph.D.

#### **Physiology and Biophysics**

Joseph P. Gilmore, Ph.D.

#### **Psychiatry**

Frank Menolascino, M.D. (Interim)

#### **Radiology**

Thomas J. Imray, M.D.

#### **Surgery**

Layton F. Ridders, M.D.

## Emeriti Faculty

- John A. Aita, M.D.  
Professor of Neurology, Emeritus
- George T. Alliband, M.D.  
Professor of Ophthalmology, Emeritus
- Paul M. Bancroft, B.S., M.D.  
Clinical Associate Professor of Pediatrics, Emeritus
- Arthur Lawrence Bennett, A.B., Ph.D., M.D.  
Professor of Physiology and Biophysics, Emeritus
- H. H. Brinkman, B.S., M.S., M.D.  
Clinical Assistant in Surgery, Emeritus
- Michael J. Carver, Ph.D.  
Professor of Psychiatry and Biochemistry, Emeritus
- James Allan Davis, M.D.  
Assistant Professor of Otolaryngology, Emeritus
- Gordon E. Gibbs, M.D.  
Professor of Pediatrics, Emeritus
- Horace K. Giffen, B.A., M.D.  
Assistant Professor of Pathology, Emeritus
- Harold Gifford, Jr., B.S., M.D.  
Professor of Ophthalmology, Emeritus
- Dale P. J. Goldsmith, Ph.D.  
Associate Professor of Biochemistry, Emeritus
- Williamina H. Himwich, B.S., M.D., Ph.D.  
Research Professor of Psychiatry and Biochemistry, Emeritus
- Edward A. Holyoke, Ph.D.  
Professor of Anatomy, Emeritus
- Arthur Letcher Irons, D.D.S.  
Associate in Surgery, Emeritus
- J. Hewitt Judd, B.S., M.D.  
Professor of Ophthalmology, Emeritus
- Arthur L. Larsen, M.D.  
Professor of Pathology, Emeritus
- John Stephens Latta, A.B., Ph.D.  
Professor of Anatomy, Emeritus
- Leroy W. Lee, M.D.  
Professor of Urology, Emeritus
- Ralph C. Moore, M.D.  
Professor of Radiology, Emeritus
- W. Howard Morrison, M.D.  
Professor of Ophthalmology, Emeritus

- Merle M. Musselman, M.D.  
Professor of Surgery, Emeritus
- Helen W. Reihart, M.S.  
Professor of Psychiatry, Emeritus
- George Edwin Robertson, B.S., M.C.  
Professor of Pediatrics, Emeritus
- Robert J. Stein, M.D.  
Clinical Assistant Professor of Psychiatry, Emeritus
- Lynn W. Thompson, B.S., M.D.  
Assistant Professor of Anesthesiology, Emeritus
- V. Lyle Von Riesen, Ph.D.  
Professor of Microbiology, Emeritus
- Robert S. Wigton, B.S., M.A., M.D.  
Professor of Psychiatry and Neurology, Emeritus
- Violet Wilder, A.B., M.A., Ph.D.  
Associate Professor of Biochemistry, Emeritus
- Cecil Legriell Wittson, B.S., M.D.  
Chancellor of the Medical Center, Emeritus  
Professor of Psychiatry, Emeritus
- George A. Young, Jr., M.D.  
Associate in Psychiatry and Neurology, Emeritus

---

## THE UNIVERSITY OF NEBRASKA

---

The University of Nebraska is composed of three major subdivisions: the University of Nebraska-Lincoln (UNL), the University of Nebraska at Omaha (UNO), and the University of Nebraska Medical Center (UNMC). Each of the three major subdivisions is led by a chancellor who reports to a university-wide president. Each is ultimately governed by an eleven-member Board of Regents who insure that the University meets its ultimate goals of quality instruction, research, and public service for the citizens of the state.

The College of Medicine actively seeks to fulfill the goals of the University by providing an educational program for undergraduate medical students leading to the award of the M.D. degree; conducting training programs and residents and fellows in the clinical sciences (Graduate Medical Education); and offering a wide variety of educational opportunities for physicians in practice (Continuing Medical Education). As one of the ten major units of UNMC, it shares the patient care, research, and community service programs of the Medical Center.

### THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

In recent years, this modern medical center has evolved as a major health facility for the State of Nebraska and surrounding areas. The Center includes the College of Medicine, College of Nursing, College of Pharmacy, the Graduate College, Nebraska Psychiatric Institute, the C. Louis Meyer Children's Rehabilitation Institute, the Eppley Institute for Research in Cancer and Allied Diseases, and University Hospital and Clinics. A School of Allied Health functions within the College of Medicine.

### COLLEGE OF MEDICINE

#### Undergraduate Medical Education

The College of Medicine operates a fully accredited program leading to the Doctor of Medicine degree. The College also offers students who have completed the first two years in medicine without having previously received a Bachelor's degree the opportunity to receive a degree of Bachelor of Science in Medicine.

#### Graduate Medical Education

Medical education is a continuing process that begins in medical school and continues through the professional life of the physician. There are many possible career choices in medicine. Graduating seniors from UNMC participate in the National Resident Matching Program to obtain first year residency positions throughout the United States.

Residency programs in the College of Medicine are available in Anesthesiology, Child Psychiatry, Family Practice, Internal Medicine, Neurology, Obstetrics and Gynecology, Ophthalmology, Oral Surgery, Orthopaedic Surgery, Otolaryngology, Pathology, Pediatrics, Psychiatry, Radiology, Surgery, and Urology. There are 65 first year and over 255 total positions. These programs are integrated with affiliated community hospitals to provide a broad experience in graduate education.

## Continuing Medical Education

Continuing education is offered through a variety of approaches to practicing physicians, nurses, and people in allied health professions. Approximately 125 on-campus courses are offered each year by the University of Nebraska Medical Center. Located within the Eppley Science Hall, the Center is uniquely designed to facilitate adult learning. Medical students are welcome to attend most scheduled programs. Continuing education is also brought to health workers in their own hospitals through circuit courses and a program of two-way amplified telephone conferences involving the University of Nebraska Medical Center faculty and out-state participating hospitals in greater Nebraska.

## School of Allied Health Professions

The School of Allied Health Professions within the College of Medicine offers the following baccalaureate, associate degree and post-baccalaureate certificate and certificate programs:

Biomedical Communications Education . . . . .	Post-baccalaureate certificate
Medical Nutrition Education . . . . .	Post-baccalaureate certificate
Medical Technology . . . . .	Bachelor of Science
Nuclear Medicine Technology . . . . .	Associate of Science
Nuclear Medicine Technology . . . . .	Bachelor of Science
Physical Therapy Education . . . . .	Bachelor of Science
Physician Assistant Education . . . . .	Bachelor of Science
Radiation Therapy Technology . . . . .	Certificate
Radiologic Technology . . . . .	Associate of Science
Radiologic Technology . . . . .	Bachelor of Science

Graduate degrees offered by the Graduate School at the Medical Center include Master of Science in Pathology for medical technologists and the post-baccalaureate certificate in Biomedical Communications.

Bulletins may be obtained upon request.

## Graduate College

The Graduate College of the University of Nebraska is a system-wide educational organization with programs administratively located on each of the three major campuses of the University of Nebraska, namely UN-Lincoln, UN at Omaha, and UN Medical Center, Omaha. These programs which are administratively housed on the Medical Center Campus are as follows:

Five departments of the College of Medicine (Anatomy, Biochemistry, Medical Microbiology, Pharmacology, and Physiology and Biophysics) offer independent majors leading to the degrees of Master of Science or Doctor of Philosophy. The Department of Pathology offers an independent major leading to the degree of Master of Science. In addition, most departments of the College of Medicine (Anatomy, Anesthesiology, Biochemistry, Internal Medicine, Medical Microbiology, Obstetrics and Gynecology, Orthopaedic Surgery and Rehabilitation, Otolaryngology, Pathology, Pediatrics, Radiology, and Surgery); one department in the College of Dentistry; and three departments in the College of Pharmacy cooperate in offering a Medical Sciences Interdepartmental Area Program which permits the student to engage in a course of study for the Master of Science degree or the Doctor of Philosophy degree with concentration in the area rather than a specific department.

For information about the entrance requirements and the course of study available, please consult the Graduate Studies Bulletin.

---

## GENERAL INFORMATION

---

### History

The Legislative Act of February 15, 1869, provided for the formation of the University of Nebraska including a college of medicine. In 1883, the University of Nebraska College of Medicine was established at Lincoln. It continued in operation until the 1887 session of the legislature withdrew its appropriation, necessitating discontinuance of the college on May 19, 1887. The Omaha Medical College, incorporated at Omaha in 1881, became a part of the University of Nebraska in 1902. However, the first class entered in the fall of 1880; therefore, the College of Medicine celebrated its centennial in the '80-'81 academic year. The merger resulted in the first two years of the four-year medical course being given in Lincoln and the last two years in Omaha. Since 1913, the entire educational program has been given in Omaha. The College of Medicine is a component of the University of Nebraska Medical Center, one of the three major campuses of the University of Nebraska System.

### Standing

The College of Medicine meets the requirements of the most exacting state examining and licensing boards. It is a member of the Association of American Medical Colleges and is accredited by the Liaison Committee on Medical Education representing the American Medical Association and the Association of American Medical Colleges.

The College of Medicine operates a fully accredited program leading to the Doctor of Medicine degree. The University Hospital and Clinic also provides residency programs in most of the major medical specialties.

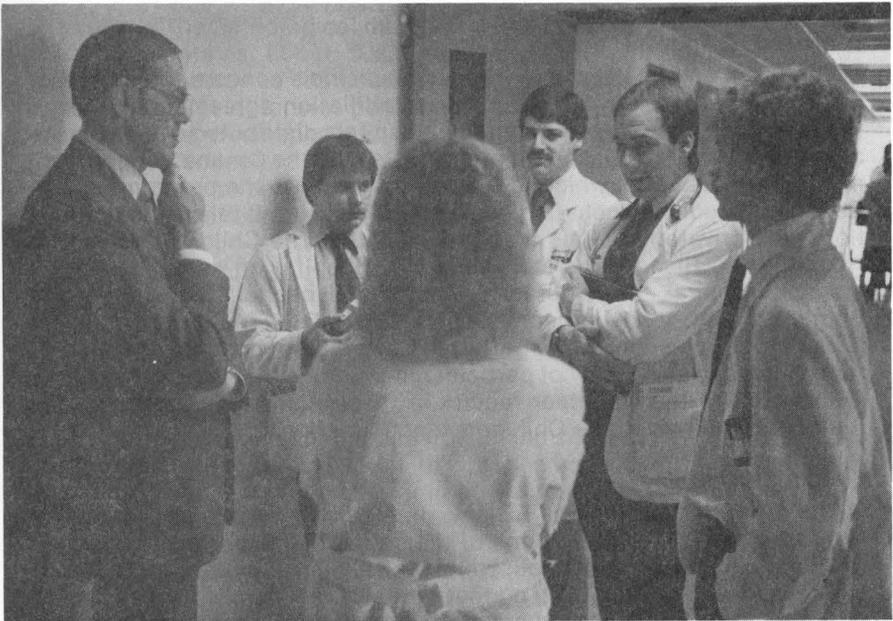
Recently several new programs have been added with the objective of providing better health services for the citizens of the State. Geriatric care has received increasing emphasis because of the long life span of Nebraskans. Establishment of a geriatric assessment center is a tangible first step in development of a strong program of care and training. With the assistance of the Swanson Foundation the Swanson Center for Nutrition has been established to promote nutrition teaching and to conduct research in this important field. For improvement in the care of difficult clinical problems the college points to the establishment of an eating disorders program with comprehensive medical and mental care, a bone marrow transplant program for use in treatment of blood dyscrasias and the establishment of a liver transplant program in the Department of Surgery. A helicopter transport service has been initiated to facilitate rapid transfer of acutely ill patients from distances up to 150 miles from Omaha. Periodic visits to small communities by clinical faculty members as well as rotations into such communities by residents in family practice, pediatrics and internal medicine insure close ties of physicians in greater Nebraska with the University of Nebraska Medical Center and assist the local medical practitioners in keeping therapy current.

## Educational Goals

The goal of the College of Medicine is to help students develop the knowledge and skills and foster attitudes appropriate for all doctors of medicine. The College aims to provide a sound basis for support of career choices in medical practice, teaching, research, or administration by stimulating students to obtain a background of basic information, a command of the language of biomedical science, a mastery of the skills necessary for clinical problem solving, a habit of self-education, and a sympathetic understanding of the behavior of healthy and sick people from all socioeconomic strata as well as ethnic groups. Because an awareness of one's personal limitations is an important attribute, students of medicine are encouraged to seek experiences which will develop self insight.

The College is particularly oriented toward training physicians to meet all the health care needs of the citizens of Nebraska.

The course of study in the College of Medicine is designed to produce an unspecialized physician soundly grounded in modern science, who, after a variable period of postgraduate education and training, is competent to enter the field of medicine as a practicing physician, a medical investigator, or a medical teacher. All are products of the same educational process and all three are essential in the field of medicine.



---

## LEARNING FACILITIES

---

### Clinical Facilities

**University Hospital and Clinic** — The University Hospital and Clinic is the central and largest unit of the group of buildings comprising the Medical Center. University Hospital has 324 beds and 52 bassinets. The Medical Center also contains 95 beds at the Nebraska Psychiatric Institute.

University Hospital and Clinic operates extensive outpatient services in the University Clinic building and in the north wing of the University Hospital. Among the sixty clinics are Internal Medicine, Surgery, Pediatrics, Obstetrics and Gynecology, and all of their subspecialty services. In addition, the Departments of Ophthalmology, Otolaryngology, Orthopaedic Surgery and Rehabilitation, Neurology, Urology, and Family Practice operate outpatient clinics. A modern emergency department is also a part of the complete outpatient services available at University Hospital. Psychiatric clinics are operated by the University Hospital and the Nebraska Psychiatric Institute.

The C. Louis Meyer Children's Rehabilitation Institute, also located on the Medical Center Campus on 44th Street, provides specialized diagnostic and rehabilitative services for the handicapped child. University Hospital operates the Family Health Center and an outreach clinic in South Omaha.

### Affiliated Hospitals

To further emphasize the College of Medicine's concern for improving health care in rural areas, a number of affiliation agreements between the Board of Regents and community hospitals distributed over the state are in effect. In Omaha, an affiliation exists with the Omaha Veterans Administration Hospital which is fully integrated into the programs of the College of Medicine including two-way, closed-circuit television connections. Six private hospitals also are affiliated: The Children's Memorial Hospital, the Bishop Clarkson Memorial Hospital on campus, the Immanuel Hospital, the Nebraska Methodist Hospital, Salvation Army Booth Hospital, and Lutheran General Hospital. Finally, pilot educational programs under way in affiliated community hospitals located in rural Nebraska are worthy of particular mention. The College of Medicine is indebted to the volunteer faculty in these community hospitals for their contributions to the College's teaching efforts.

### Library of Medicine

The Leon S. McGoogan Library of Medicine in the University of Nebraska Medical Center is one of the country's major health sciences resources libraries. It is housed in a 64,800 net-square-foot edifice situated above Wittson Hall, a location designed to reflect the concept of the library as a catalyzing agent for all activities on the campus. The collection numbers about 180,000 volumes, with a current journal titles list of about 3,300. Multi-media materials for self-instruction in curricular fields are also collected and made available in the Learning Resources

Center. The library seats 450 readers in a variety of individual and group seating arrangements.

Reference services are offered the clientele of the Library of Medicine, including over 100 on-line computer-based bibliographic services such as MEDLINE (MEDLARS on-line) and CA SEARCH (Chemical Abstracts on-line). Bibliographic instruction and interlibrary borrowing are also available. The library is a link in a national network designed to facilitate biomedical information transfer, having been named by the National Library of Medicine as the management headquarters for the seven-state Midcontinental Regional Medical Library Program. This offers unlimited opportunity for the pursuit of research and study.

In addition to its regular functions, the library maintains a rare book collection and houses the Orr Collection of the American College of Surgeons. It also collects special materials on the history of medicine in Nebraska. Incorporated within the Library of Medicine are 2,000 volumes of the Omaha Douglas County Medical Society, periodic transactions of the Nebraska State Medical Association, and several outstanding medical libraries of former practitioners of the state.

### **Laboratory Facilities**

The gross anatomy laboratory is located on the second level of Wittson Hall. A modern audiovisual room with a wide variety of auto-instructional materials is adjacent. A multi-disciplinary laboratory located on the third floor of Wittson Hall is used for laboratory experience in histology, neuroanatomy, microbiology and pathology courses.

**Museum** — The pathological museum of the College of Medicine in Wittson Hall contains about 3,500 specimens. Nearly every variety of pathological lesion is represented and the constant addition of fresh material from the autopsies performed continually adds to its interest. In addition to the gross specimens are thousands of microscopic sections and a large collection of wax reproductions of various lesions. The museum is an important and necessary adjunct to the teaching of pathology and of clinical medicine.

---

## **ADMISSIONS**

---

### **Educational Requirements**

Adequate grounding in the humanities and social sciences, as well as the natural sciences, is sought in prospective students of medicine. Familiarity with the humanities and social sciences, which puts physicians in touch with society and helps them gain understanding and compassion so basic to the art of healing, is indispensable because of the growing complexity of society. However, the rapid development of medicine as an applied science also requires suitable preparation in scientific and mathematical disciplines.

The pre-professional education period is too early to expect students to have determined their ultimate goals in medicine. However, if students have tentative plans to engage in some aspects of biological research,

they are encouraged to develop depth in the natural sciences and mathematics. Students who tentatively plan to engage primarily in clinical practice will benefit from a broad background in the humanities and social sciences and may want to consider a concentration in a field other than science.

Medical education is viewed as a continuum. College, professional college, and then post-graduate education are all one training period. Hence, college courses which essentially will be repeated in professional school are considered of limited and short-term value. Instead, students are well advised to broaden their horizons rather than narrowly focus their efforts in the natural sciences.

## High School

A strong college preparatory course is recommended. Students should consider scheduling two years in a foreign language, four years of English, and as many liberal arts, mathematics and science courses as possible.

## Requirements for Entrance

A minimum of 90 semester hours (3 years college work) in an accredited college is required. However, to provide an opportunity for in-depth study, the completion of a college major or undergraduate degree is strongly recommended. The new MCAT is required.

The undergraduate program must include the following:

<i>Course</i>	<i>Semester Hours</i>
<b>BIOLOGY (With Lab)</b>	<b>8-10</b>
Unless Biology is chosen as the college major, additional electives in the field which may significantly duplicate courses given in medical school are less advantageous to the student than other electives.	
<b>INORGANIC CHEMISTRY (With Lab)</b>	<b>8-10</b>
<b>ORGANIC CHEMISTRY (With Lab)</b>	<b>8-10</b>
The requirement is for two semesters of general or inorganic chemistry (analytical chemistry may serve as part of this requirement) and a two-semester complete course in organic chemistry.	
<b>PHYSICS (With Lab)</b>	<b>8-10</b>
This should include a two-semester complete course in physics. The student should register for the course which is commensurate with his mathematical background if more than one is available.	
<b>HUMANITIES</b>	<b>12-16</b>
To fulfill this requirement, broad introductory courses in at least four disciplines in the social sciences or humanities should be considered unless one of the social sciences or humanities is selected as the major field of study. Courses in anthropology, economics, history, political science, general or comparative religion, sociology, art history, classics, literature (English or foreign), music literature or theory, and philosophy may be used to fulfill this requirement.	
<b>ENGLISH</b>	
Students must complete a writing course or an English composition course. Students may not substitute a placement examination for this requirement.	
<b>MATHEMATICS</b>	
This must include material through introductory calculus OR a course in statistics.	

In addition to meeting specific requirements, applicants are encouraged to adopt an educational goal which includes exploration of areas of personal interest. This may vary from a thorough investigation of the natural sciences to the social sciences and humanities. In view of the rapidly broadening scope of medicine, a well-rounded education is considered optimum preparation.

Hours earned in professional colleges or schools which hold both regional collegiate accreditation and professional accreditation may be applied to the "90 hour general requirements." Examples of institutions referred to are engineering and technology, collegiate nursing, pharmacy, physical therapy and other programs in the allied health area. Hours may not be applied to specific group requirements for admission to the College of Medicine unless investigation (or previous UNMC experience) verifies that course content has been found equivalent to approved pre-professional courses offered by traditional undergraduate liberal arts colleges.

Hours awarded for CLEP Subject Examinations must be verified by submission of official CLEP Score Reports. Scores must meet UNMC requirements for credit — usually the 50th percentile. If verified, the hours may be used to meet the "90 hour general requirement" but are not acceptable for application to the College of Medicine group requirements.

The Admission Committee of the College of Medicine will not accept credit towards the required courses for hours graded Pass-Fail and discourages applicants from taking more than 10 hours of Pass-Fail courses toward the 90-hour group requirements. In a situation where an applicant does not have the option of grades and only Pass-Fail courses are available, considerations will be given if the applicant can produce a written evaluation of each course taken on a Pass-Fail basis.

### **Application for Admission**

Admission to the College of Medicine is granted without regard to age, handicap, sex, race, color, national origin, or religious or political beliefs.

The College is deeply concerned about underserved rural and minority communities in the state. Because research data show candidates emanating from those areas are likely to return, the Admissions Committee gives particular attention to under-represented minority applicants and to applicants from counties with total population under 25,000.

In considering scholastic records of applicants, attention is given both to the quality of performance and to the rigor of the academic programs. Consideration is given also to appraisals of character, personal interviews, scores on the new Medical College Admission Test, and general fitness and promise of the candidate.

The following statement represents the guidelines regarding technical standards under which the Admission Committee operates:

1. The physical ability to master the skills involved in the independent practice of medicine.
2. The ability to communicate effectively with patients, peers and other members of the health care community.
3. The emotional stability to cope with the demands that characterize the practice of medicine.

The Admissions Committee considers, without bias, all applicants who meet these technical standards.

### **Application Procedures**

The University of Nebraska College of Medicine is a participant in the American Medical College Application Service (AMCAS) of the Association of American Medical Colleges. Application request cards are available from pre-medical advisors and from participating medical

schools. Requests should be directed to the Office of Academic Records, University of Nebraska Medical Center, 42nd and Dewey, Omaha, Nebraska 68105.

Complete instructions for proceeding with the application accompany the application packet received from the above source. Careful attention to all details listed will expedite the handling of applications. Changes in residency status cannot be implemented during the time an application is being considered. The application will be processed by AMCAS and forwarded to the University of Nebraska College of Medicine. Deadline for receipt of applications by AMCAS will be November 15, 1985 for 1986 admission.

Upon receipt of an application from AMCAS and preliminary screening, the College of Medicine will request letters of reference, a photograph, and supplementary information of all state residents and some out-of-state residents.

A personal interview is required of each applicant. Interview sessions are held on the Medical Center campus and arrangements should be made through the Academic Affairs Office of the College of Medicine. Interviews are conducted without knowledge of academic credentials. Thus, the purpose of the interview is to assess personal attributes and the nature of the candidate's motivation.

Any applicant who has previously applied for admission must re-apply in the regular manner if consideration for a subsequent year is desired.

### **Admissions Committee**

The Admissions Committee meets weekly from late December until late March. Notices of acceptance, rejection, or "hold" are sent weekly to those candidates who were considered. Applicants on hold are given reconsideration in March. The remaining places are filled and an alternate list is developed from among these applicants. Each acceptee is given the opportunity to request deferral of admission for one year. Favorable reaction to a request for deferral is dependent upon the strength of the reasons provided.

### **Advanced Standing**

If a vacancy exists, application for admission with advanced standing will be considered from students attending medical schools accredited by the Liaison Committee on Medical Education or from Nebraska residents who attend a foreign medical school. In the case of the latter, performance on the MSKP examination will constitute an important aspect of the evaluation. Applicants with strong MSKP scores must pass the college's comprehensive examinations in the appropriate basic science disciplines in order to be given final consideration for transfer. Applications may be obtained from the Office of Academic Records, University of Nebraska Medical Center, Omaha, Nebraska 68105.

An application fee of \$10 for residents and \$25 for non-residents is required. The fee is not applicable to tuition if the student is accepted for admission. It is not refundable. The student must furnish evidence of satisfactory completion of courses equivalent in kind and amount to those taken by the class to which admission is sought. The student must also present a letter of recommendation from the dean of the medical school last attended. The College of Medicine reserves the right in every

case to give examinations in any or all subjects in which credit is requested.

Students who have been dismissed from another medical school may not be considered for admission to this College of Medicine.

### **Credit for Advanced Standing**

According to Board of Regents policy, the Director of Academic Records of the Medical Center will maintain a record of names and credit hours of courses taken at other colleges of medicine, but grades received in courses presented for advanced standing credit will not appear on the permanent record sheet of the student.

The educational program of students admitted for advanced standing in the College of Medicine will be reviewed by the faculty of the College of Medicine. The faculty will decide about the applicability of each course toward the requirement for graduation.

### **Residency Status**

Students who reside or whose parents reside in a state other than Nebraska, or who have moved to Nebraska within the past three years, must apply for resident status. For full information as well as application forms for residency please write to the Office of Academic Records, 3018 Conkling Hall, University of Nebraska Medical Center, 42nd and Dewey Avenue, Omaha, Nebraska 68105.

### **Registration and Admission to Classes**

When an applicant receives notice of acceptance for entrance into the College of Medicine, the applicant's response to the acceptance offer must be received within two weeks. A deposit of \$100.00 to hold a position as a member of the class must be received within 30 days. The pre-enrollment deposit is applicable to tuition. Of the \$100.00 deposit, \$80.00 will be refunded to the student who finds it necessary to withdraw during or prior to the first week of classes.

All men and women planning to attend the University of Nebraska Medical Center under Chapters 31, 34 and 35 of the Educational and Assistance and Vocational Rehabilitation Laws administered by the Veterans Administration should inquire at the Office of Academic Records of the University of Nebraska Medical Center, 3018 Conkling Hall, before they register to make sure that all necessary steps have been taken.

Registration for first-year students is accomplished at orientation. Registration for subsequent semesters will be completed approximately two weeks preceding the beginning of each semester. Any change in registration during the first two years must be approved by the Associate Dean for Academic Affairs or recommended by the Scholastic Evaluation Committee.

Each student enrolling in the College of Medicine agrees to meet the normal requirements for fulfillment of educational training, including attendance at classes, sitting for conjoint examinations, laboratory and comprehensive examinations, and meeting clerkship requirements under the normal schedules. Implied in the acceptance is the understanding that medical education will take precedence over other activities.

---

## CURRICULUM

---

A 4-year course of studies leading to the M.D. degree was implemented in 1978. The program is designed to qualify the medical graduate for residency training in any field of medicine, but especially in the primary care fields and to prepare graduates for a lifetime of continuing professional education.

Phase one of the curriculum (4 semesters, 2 years) requires mastery of the basic science disciplines (anatomy, behavioral science, biochemistry, microbiology, pathology, pharmacology and physiology) and acquisition of basic clinical skills and insights. Phase two (84 weeks) requires that the student develop thoroughness in evaluating clinical problems, a strong capacity for rational therapeutic decisions, high standards of professional conduct, and productive habits for independent study. Forty-eight weeks of phase two are allotted to the required clinical clerkships in family practice, internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. The student then completes an additional 36 weeks of elective clinics or basic science experiences. To qualify for graduation, each student demonstrates to the faculty that the knowledge, skills, and attitudes necessary for successful entry into the residency (graduate) phase of medical education have been acquired.

The Curriculum Committee, with student representation, is responsible for curricular change and evaluation. Written educational goals and objectives are required of all course or clerkship directors.

### **Auditing Courses**

A course may be audited with the permission of the instructor and the dean of the college in which the course is offered. The student must be academically qualified and there must be adequate space and facilities for the student to audit a course. Since clerkships demand participation, auditing is limited to didactic courses. There is no credit for an audited course. Application forms for auditing courses may be secured from the Department of Academic Records, Room 3020, Conkling Hall. This form must be completed by the sixth day of the current term. The fee for auditing a course is one-half the current resident credit hour fee.

### **Student Research Opportunities**

Medical students can acquire research experience during the summer vacation after the first year or by pursuing a research elective during the clinical phase of the curriculum. It is recommended that all students consider participation in research activity in order to understand how medical progress is made and to test the potential of incorporating research into their career plans.

#### **1. Research Projects**

Many of the faculty are interested in providing research experiences for medical students. Stipends are available for some research endeavors scheduled during vacation periods. Students may not accept stipends for research if academic credit is being given. For a list of interested faculty and their research interests, as well as informa-

tion on the availability of stipends and fellowships for work either in the College of Medicine or at other institutions, contact the Office of Academic Affairs.

## 2. Honors Program

Students whose academic performance during the first two years of the medical curriculum places them in high rank, as determined by the Scholastic Evaluation Committee, will be eligible for the Honors Program. The intent of this program is to encourage highly qualified students to go beyond the standard curriculum by developing a project that will lead to a significant research experience or substantially different clinical competence than that developed in the normal curriculum. Information about this program can be obtained from the Office of Academic Affairs.

## 3. Student Research Forum

An annual Student Research Forum is sponsored on the campus. Opportunity is provided for students from all colleges at UNMC to present papers or posters describing their laboratory or clinical research experiences. Outstanding presenters are selected to represent the Medical Center at regional and national student research meetings.

## 4. M.D. Ph.D. Program

Careers in academic medicine in which there can be involvement in teaching of clinical medicine, patient care and clinical or basic science research are attractive alternatives to medical practice. The opportunities to become a faculty member of one of the 126 medical schools or obtain a full-time appointment in a research institute are particularly good at the present time. One of the avenues to such positions is obtaining a combined degree in medical and graduate programs.

Ph.D. degree programs are available on the UNMC campus in the fields of Anatomy, Biochemistry, Physiology and Biophysics, Microbiology, Pathology and Pharmacology. The scope of programs may be expanded greatly by enrollment in the medical science interdepartmental area. Students may also pursue doctoral programs in other fields by enrolling at the University of Nebraska at Lincoln or other institutions.

The M.D.-Ph.D. program is individualized and open to several options for scheduling. At the present time it is not possible to provide stipends to students when enrolled in the medical phase. Some support is usually available if the student is enrolled in full-time graduate work.

Most students in the combined program (currently 6-8) enter the medical curriculum and use the first year of enrollment to discover in which field their interests for graduate work lie and perhaps which faculty member they would like to work with. They try to spend the summer after the first year in that laboratory on a preliminary

research project and continue with the research on a limited basis through the second year of the medical curriculum. Some try to take graduate courses with the medical curriculum but the course load in medicine of 24 credit hours/semester is somewhat daunting. After the second year most take a leave from medical school to become full-time graduate students for 1½-2 years. If the graduate course work and dissertation cannot be completed in that period, elective time in the fourth medical year may be used to complete the project or write the dissertation.

Students who have selected a field for graduate study before entrance may wish to apply for simultaneous acceptance to graduate and medical programs and schedule work in each on a part-time basis. In our experience, part-time enrollment in two programs has not been as satisfactory as the other approach.

Please contact Dr. Binhammer, Associate Dean for Academic Affairs, for additional information.

### **Special Academic Assistance for Students**

In recognition of those students from nontraditional backgrounds or those whose educational or social backgrounds have been disadvantaged, the college offers various forms of special assistance. Under the guidance of an individual advancement program, it is possible to reduce the number of courses taken and thereby reduce the academic load. This is accomplished by spreading the curriculum of the basic science phase over three years instead of two. The student must attain the same level of academic achievement as his or her colleagues in the regular program but may have longer to do so. Concurrence on the schedule must be obtained from the Associate Dean for Academic Affairs and the Scholastic Evaluation Committee. Tutoring in small groups or on an individual basis is available for any student who may be having academic difficulty.

## COURSE DESIGNATIONS

FIRST YEAR, FIRST SEMESTER	DEPT/COURSE NUMBER	CREDIT HOURS
Human Gross Anatomy I	04/510	4
Histology	04/511	2
Neuroanatomy	04/512	2
Human Embryology I	04/513	2
Living Anatomy I	19/540	2
Biochemistry	08/510	5
<b>FIRST YEAR, SECOND SEMESTER</b>		
(First 8 Weeks)		
Human Gross Anatomy II	04/520	2
Histology II	04/521	2
Human Embryology II	04/523	1
Living Anatomy II	19/542	1
Physiology	68/510	4
Genetics	19/518	½
Introduction to Behavioral Sciences	70/502	2
(Second 8 Weeks)		
Physiology (Continued)	68/510	5
Biochemistry	08/511	2
Genetics (Continued)	19/518	½
Medical Humanities	28/550	2
Medical Jurisprudence	28-502	1
Introduction to Behavioral Sciences (Continued)	70/502	—
<b>FIRST YEAR, MAY TERM</b>		
Clinical Nutrition	19-520	1
<b>SECOND YEAR, FIRST SEMESTER</b>		
DEPT/COURSE NUMBER      CREDIT HOURS		
Microbiology & Immunology I	57-618	6
Pathology I	57-620	5
Pharmacokinetics	66-610	1
Neuropsychopharmacology	66-611	3
Introduction to Clinical Medicine I	19-650	6
<b>SECOND YEAR, SECOND SEMESTER</b>		
Microbiology	57-619	3
Pathology II	57-621	5
Clinical Pathology	57-622	5
Systems Pharmacology I	66-612	2
Systems Pharmacology II	66-613	2
Clinical Pharmacology	66-623	1
Introduction to Clinical Medicine II	19-652	6
<b>THIRD YEAR CLERKSHIPS</b>		
DEPT/COURSE NUMBER      CREDIT HOURS		
Family Practice Preceptorship	18-705	8
(Sometime during junior/senior yr)		
Internal Medicine	20-705	8
Obstetrics/Gynecology	40-705	8
Pediatrics	60-706 and 60-707 or 60-708 and 60-709 or a combination	8
Psychiatry	70-705	8
Surgery	80-705	8
<b>FOURTH YEAR CLERKSHIPS</b>		
Selective Internal Medicine		4
Electives	Each elective is four weeks in duration	32

**CURRICULUM**  
**YEAR 1 — BASIC SCIENCE**

**FIRST SEMESTER**  
(16 weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8					
9	Biochem	Biochem	Biochem	Biochem	
10	Histo	Embryo	Histo	Embryo	
11	Neuro		Neuro	Anat/Emb Supp	Biochem
12	<b>LUNCH</b>				
1	Lab Intro	Gross Anatomy	Applied Anatomy	Clin Neuro/ Histo	
2	Gross Lab	Gross Lab	Clinical Anatomy	Sec B Hist/Neur (Lab 2-4)	
3			Sec A Hist/Neur (Lab 3-5)	Sec A Liv Anat (3-4:30)	Anat Tutorial
4			Sec B Liv Anat (3:30-5)		

**SECOND SEMESTER — 1st HALF**  
(8 weeks)

8					
9	Histo	Embryo	Histo	Embryo	Histo
10	Physiology	Physiology	Physiology	Physiology	Genetics
11					Behavioral Science
12	<b>LUNCH</b>				
1	Lab Intro	Gross	Applied Anatomy	Anatomy Embryo Supplement	
2	Gross Lab	Gross Lab	Clinical Anatomy	Sec B Histo (Lab 2-4)	
3			Sec A Histo (Lab 3-5)	Sec A Liv Anat (3-4:30)	Anat Tutorial
4			Sec B Liv Anat (3:30-5)		

**SEMESTER I**

(Aug. 26, 1985-Dec. 18, 1985)  
Orientation — Aug. 22-23, 1985  
First Day of Classes — Aug. 26, 1985  
Labor Day — Sept. 2, 1985  
Thanksgiving — Nov. 28-29, 1985  
Christmas Holiday — Dec. 19, 1985-Jan. 5, 1986

**SEMESTER II**

(Jan. 6, 1986-May 3, 1986)

**SEMESTER II (2nd Half)**

(Mar. 3, 1986-May 3, 1986)  
Spring Break — Mar. 23, 1986-March 30, 1986

**MAY TERM**

(May 5, 1986-May 24, 1986)  
Memorial Day — May 26, 1986

**REVIEW FOR COMPREHENSIVES**  
(May 26, 1986-June 1, 1986)

**COMPREHENSIVES**  
(June 2-3, 1986)

**CONJOINT DATES**

Sept. 21, 1986  
\*Oct. 19, 1986  
Nov. 16, 1986  
\*Dec. 18, 1986  
Feb. 1, 1986  
\*Mar. 1, 1986  
Apr. 5, 1986  
\*May 3, 1986

*Freshmen — all dates      \*Sophomore dates only*

**CURRICULUM**  
**YEAR 1 — BASIC SCIENCE**  
**SECOND SEMESTER — 2nd HALF**  
**(8 weeks)**

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8					
9	Medical Jurisprudence	Biochem	Biochem	Biochem	Biochem
10	Physiology	Physiology	Physiology	Physiology	Genetics
11					Behavioral Science
12	<b>LUNCH</b>				
1	Behavioral Science	Physiology	Behavioral Science	Physiology	Behavioral Science
2	Medical Humanities	Medical Humanities	Medical Humanities	Medical Humanities	Medical Humanities
3					

**MAY TERM**  
**(3 weeks)**

8					
9					
10					
11	Clin Nutrition		Clin Nutrition		Clin Nutrition
12	<b>LUNCH</b>				
1					
2					
3					
4					

**CURRICULUM**  
**YEAR 2 — BASIC SCIENCE**

**FIRST SEMESTER**  
(16 weeks)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8	MICRO	MICRO	MICRO	MICRO	MICRO
9	LABS ARE INCLUDED IN THIS TIME AVERAGING 6 HRS. PER WK.				
10	Gen Path	Gen Path	Gen Path	Gen Path	Gen Path
11	Pharm		Pharm	Pharm	Pharm
12	<b>LUNCH</b>				
1	Introduction to Clinical Medicine				
2					
3					
4					

**SECOND SEMESTER**  
(16 weeks)

8		Micro Lab			
9	Micro		Micro	Micro	Micro
10	Gen Path	Gen Path	Gen Path	Gen Path	Gen Path
11	Pharm	Pharm	Pharm	Pharm	Pharm
12	<b>LUNCH</b>				
1	Clin Path	Clin Path	Clin Path	Clin Path	Clin Path
2	Introduction to Clinical Medicine				
3	(continued)				
4					

**CURRICULUM**  
**YEAR 2 — BASIC SCIENCE**

MAY TERM  
(3 weeks)

8  
9  
10  
11  
12  
1  
2  
3  
4

Basic Skills — Individualized

Scheduling of Small Groups

LUNCH

**CURRICULUM  
PHASE II — CLINICAL**

	JULY-AUG	SEPT-SEPT	NOV-DEC	JAN-FEB	MARCH-APRIL	MAY-JUNE
<b>JUNIOR YEAR</b>	REQUIRED CLERKSHIP	REQUIRED CLERKSHIP	REQUIRED CLERKSHIP	ELECTIVES (sometime in Jr. Yr.) or COMMUNITY PRECEPTOR	REQUIRED CLERKSHIP	REQUIRED CLERKSHIP
	(Internal (Medicine)	(Surgery)	(Ob/Gyn)		(Psychiatry)	(Pediatrics)

In Phase II of the curriculum the student enters into clinical training. The student is required in his junior year to take the basic clerkships of Internal Medicine, Obstetrics-Gynecology, Pediatrics, Psychiatry, and Surgery; all of them are eight weeks in duration. The required eight weeks with a Community Preceptor is taken sometime between January of the junior year and February of the senior year.

	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL
<b>SENIOR YEAR</b>	ELECTIVES or COMMUNITY PRECEPTOR (to be taken between Jan. of Jr. Yr. and Feb. of Sen. Yr.)		ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	ELECTIVE	VAC. (1 mo. any time Jr. or Sen. Yr.)	ELECTIVE

In the remaining year the student chooses from a wide range of electives. One 4-week selective in Internal Medicine is required plus 8 other 4-week electives. A one-month vacation may be scheduled anytime during the junior or senior year.

---

## EVALUATION OF STUDENT PERFORMANCE

---

The Scholastic Evaluation Committee, the Appeal Board, and the Faculty Council for Governance have the responsibility and prerogative for determining the fitness of a student to continue in the college. Any student who by quality of work, by conduct, or other reason indicates unfitness to enter the practice of medicine, may be dismissed from the college.

### **Conjoint Examinations**

During the basic science sequence, students are examined once every four weeks in conjoint examinations. Each course participating in a semester is allotted time in the examination in proportion to the hours of credit in the course. The specific dates for these examinations are given to the students at the beginning of each semester. The usual examination period is from 8 a.m. to 12 noon on Saturday. Special arrangements are made with students who are unable, because of religious restrictions, to sit for examinations on Saturday. Students seeking to be excused from a scheduled examination must make prior arrangements with the Associate Dean for Academic Affairs. Medical students as future physicians are expected to meet their obligations in spite of minor adversities. However, excuses from scheduled examinations will be granted for compelling reasons.

Performance on the conjoint examinations will constitute at least 75% of the individual's evaluation except in those courses that have significant laboratory experience and have received permission to increase the percentage assigned to laboratory examinations. Examinations other than the conjoint may be given. If a course instructor plans to conduct additional examinations, the times at which these will be given, the type of examination and how much value these will hold in assessing course achievement must be provided to students.

### **Comprehensive Examinations**

Comprehensive examination generated by the faculty of the College of Medicine must be completed satisfactorily. Comprehensive examinations in the subjects of anatomy, physiology, biochemistry, and behavioral science will be given during the last week of the first year. Similar comprehensive examinations in the subjects of microbiology, pathology, and pharmacology will be given at the termination of the second year. A comprehensive examination in clinical disciplines of internal medicine, family practice, ob/gyn, pediatrics, psychiatry, and surgery will be given at the midpoint of the senior year. Students must pass these comprehensive examinations as a prerequisite for promotion and graduation. A Pass/Fail grading system is used for these examinations. The passing level of individual segments will be set by the departments.

## Grading System

The grading system for all classes is as follows:

- A — Excellent performance
- B — Good performance
- C — Satisfactory performance
- D — Marginal performance
- F — Fail

The above letter grades do not have or require fixed numerical percentage equivalents.

A course which, for good reason, has not been completed, but in which progress has been satisfactory, may be reported as "Incomplete." The department issuing the grade of "Incomplete" will indicate by departmental record, with a copy to the student, how it is to be removed. A student must remove an "Incomplete" by the end of the semester subsequent to which the "Incomplete" was received or the grade will be converted automatically to a failure. The department may petition the Scholastic Evaluation Committee to make individual exceptions to this rule.

The grading system was adopted by the faculty in order to identify outstanding students who may be encouraged to vie for very competitive post-graduate positions and also to identify students who need extra attention because of weakness in one or more areas. The college feels that students learn for the sake of helping those who are sick or for discovering new knowledge rather than simply for getting grades. Students are encouraged to view grading systems from this perspective.

Procedures have been developed in accordance with the Bylaws of the Board of Regents to handle student appeals of academic evaluation. Students who believe that evaluation of course work or clerkship performance has been prejudiced or capricious should consult with the Associate Dean for Academic Affairs who will provide them with the procedural guidelines, or they may consult the *UNMC Student Handbook*, which summarizes the procedure. A written appeal must be received within fifteen days after formal notification of the grade by the Office of Academic Records. If and when examination papers are returned to students they represent a true record of the student's performance.

## Class Performance and Promotion

Instructors in each of the courses are responsible for evaluation of the student's academic performance. Written or oral examinations, personal observations or any other method may be used in making assessments. The student's total performance is reviewed at the end of each semester by the Scholastic Evaluation Committee. The committee is asked to decide whether a student should advance, complete additional work, repeat a course(s) or, if work has been unacceptable, to recommend the student be dropped from enrollment.

A complete description of the policies used by the Scholastic Evaluation Committee is contained in a document entitled "Guidelines for Scholastic Evaluation Committee." Each student is given a copy of the guidelines shortly after matriculation and each is asked to become familiar with the contents. As a brief summary it should be noted that the faculty expects students to attain a "C" average for each academic year and to pass the appropriate comprehensive examinations in order to be promoted. A grade of "Fail" in a course is usually indication for repeti-

tion of the course and only grades of "C" or better are acceptable achievement for failed courses being repeated. Unless there are extenuating circumstances, students must complete the medical curriculum in 5 years of enrollment.

### **Right of Appeal**

If it becomes necessary to discontinue enrollment, the student may request review of the situation by an Appeal Board. The Appeal Board, appointed by the dean, is composed of a minimum of three members of the faculty, none of whom were involved in the original recommendation for termination, and one student. The Associate Dean for Academic Affairs is a non-voting member of the Appeal Board. The guidelines for Appeal Board action are included in the "Guidelines for the Scholastic Evaluation Committee." Care will be taken to give full respect to the rights of students when decisions are made about them.

---

## **REQUIREMENTS FOR GRADUATION**

---

Requirements for graduation must be met within five years of matriculation into the College of Medicine, except when the dean determines that a student's course of studies has been interrupted by research experience, illness, disability, or financial exigency, or when an approved leave of absence has been granted.

The degree of Doctor of Medicine is granted only to candidates who:

1. Are at least 21 years of age.
2. Possess a good moral reputation.
3. Have pursued the study of medicine for at least two years at the University of Nebraska College of Medicine.
4. Have successfully passed all departmental examinations, have received grades of "A", "B", "C", or "D" in all courses, and obtained at least a "C" average.
5. Have successfully passed the three comprehensive examinations (as described in the section on comprehensive examinations).
6. Have discharged all indebtedness to the University of Nebraska.

The Scholastic Evaluation Committee may select not more than eight students from the top 10% of the graduating class and recommend them for the degree of Doctor of Medicine with Distinction.

The Scholastic Evaluation Committee may also select not more than four students from the top 10% of the graduating class who have shown outstanding scholarship or who have made an outstanding contribution to medical science and recommend them for the degree of Doctor of Medicine with High Distinction.

### **Applications for Degree**

Each student who expects to receive a diploma must file an application of candidacy for the diploma in the Academic Records Office, Room 3020, Conkling Hall. Announcements concerning deadlines for applications are posted throughout the campus and published in the internal communication journals of the Medical Center.

### **Degree of Bachelor of Science in Medicine**

Students presenting premedical college credits of high standard and who have satisfactorily completed all courses of the first two years in medicine, but who have not fulfilled the requirements for the degree of Bachelor of Science or Bachelor of Arts in a College of Arts and Sciences, may become candidates for the degree of Bachelor of Science in Medicine.

### **Courses Leading to the Degree of Bachelor of Arts or Bachelor of Science and Doctor of Medicine**

Students who have transferred from the University of Nebraska-Lincoln or Omaha Colleges of Arts and Sciences may earn the Bachelor of Arts degree or Bachelor of Science degree, providing all other requirements have been fulfilled, by using the subjects of the first year of the medical curriculum as a major.

These degrees are conferred at a commencement on the UNL or UNO campus.

Candidates for baccalaureate degrees in other institutions may arrange with their colleges to accept such degrees, or otherwise satisfy the requirements of those institutions.

### **Commencement Exercises**

Commencement attendance is required for those completing degree requirements in May and December, unless explicitly excused by the dean of the appropriate college concerned. Those graduating at other times will receive diplomas when requirements are fulfilled, but have the privilege of participating in the next formal commencement.

### **Alumni Association**

Alumni of the University of Nebraska College of Medicine maintain an active organization with headquarters in Omaha at the college. Activities include sponsorship of class reunions and social functions at various national meetings attended by graduates of the College of Medicine. The Association supports a student loan and scholarship fund, a library endowment fund, and four other funds. Six full-tuition scholarships are paid by the Alumni Association. A news bulletin is sent to members on a quarterly basis.

---

## **GENERAL POLICIES**

---

### **Student Rights and Responsibilities**

In accordance with Section 5.4 of the Bylaws of the Board of Regents, and in order to insure the protection of students' rights, the University of Nebraska Medical Center has established general procedures which must be followed if any disciplinary action is proposed against students. Disciplinary procedures may be instituted in instances of academic misconduct including but not limited to unauthorized collaboration or use of external information during examinations, plagiarism, falsifying records or clinical reports or engaging in any conduct which is intended

to confer unfair advantage with respect to academic matters. Non-academic misconduct subject to disciplinary procedures includes but is not limited to belligerence towards others, sexual harassment, possession of explosive devices, distribution or sale of controlled substances having potential for abuse, violation of patient confidentiality and conduct on or off the campus that reflects poorly on the University of Nebraska College of Medicine. Students will be informed in writing by the Dean's Office of the specific charges, the supporting evidence, and the proposed disciplinary action. The Office of the Dean will also inform students of their right to appeal. The UNMC "Procedural Rules Relating to Discipline" may be found in the *UNMC Student Handbook*. The procedures insure that the rights of students have been carefully protected.

University of Nebraska Medical Center students on clerkships in the Hospital or in Clinics will conform to all the regulations which apply to medical staff and personnel of the University of Nebraska Hospital.

### **Student Records**

■ The academic record of a student is confidential and an official transcript of such record is sent only at the request, or with the consent, of the student or alumnus. The only information that will be released without the student's permission is name, dates of attendance, and degree(s) awarded.

■ The student records kept in the Office of Academic Affairs are the official records of the College. They are available to the student and may be inspected upon request. The official records include the original application for admission with its supporting documents, unless the student has previously waived the right to see them; the narrative report describing the student's performance in the medical curriculum; grade sheets; any entries about him or her in the minutes of the Scholastic Evaluation Committee; and finally, the letter of recommendation written in support of application for residency. There are no records kept by the Dean's Office which the student may not peruse.

### **Family Rights and Privacy**

The University of Nebraska complies fully with the Family Educational Rights and Privacy Act of 1974 which was designed to protect the privacy of educational records. Students have the right to inspect and review their educational records in departmental offices and the Dean's Office, and to request the correction of inaccurate or misleading data through informal and formal hearings.

The policy concerning student records may be found in the *UNMC Student Handbook* or in the Office of Student Services.

### **Leave of Absence or Withdrawal**

Experience suggests that ability to perform satisfactorily in a demanding curriculum, such as is the case in medicine, can be severely compromised by internal or external forces not clearly understood by the student, nor readily under his or her control. In many instances, leaving the stressful environment is a suitable way to gain perspective because it provides uninterrupted time to analyze the problem, develop one's own valid solutions, and evaluate their efficacy. Leaves are particularly effective in dealing with problems of motivation. A leave may also be the most

effective way of coping with severe financial problems, complicated relations with significant others or health-related difficulties. Because it has been found that leaves of absence are almost always very helpful, the process to arrange them is a simple one.

Students are asked to consult with Dr. Binhammer in the Dean's Office and then make a formal request in writing. Ordinarily a leave of absence is granted for a year or a portion thereof, but it may be extended for more than a year if circumstances warrant.

Students who feel the necessity to withdraw from enrollment are asked to consult with Dr. Binhammer before taking action.

---

## **THE STUDENT BODY AND STUDENT ORGANIZATIONS**

---

At the present time there are 120 positions in the entering class. The total enrollment numbers approximately 550 students, of whom 33% are women. The attrition rate is low and is, for the most part, attributable to illness or loss of motivation rather than academic failure. The college subscribes to the policy that there should be careful selection for admission to minimize attrition.

The student body has representation upon virtually all the planning and governing bodies of the college. Student members are specified on standing committees for Admission, Curriculum, and Scholastic Evaluation. It is the policy to include students on all special or ad hoc committees that deal with issues which have an impact upon student life.

### **Medical Center Student Senate**

The Medical Center Student Senate governs the organization and regulation of student activities of the College of Medicine, College of Nursing, College of Pharmacy, School of Allied Health Professions, and UNMC students in the Graduate College. It serves as a liaison group between students in the various disciplines and works toward the common goals of students at UNMC. Each college or school elects representatives to serve on the Medical Center Student Senate.

### **Organization of Student Representatives**

The OSR, established by action of the Assembly of the Association of American Medical Colleges (AAMC), provides a mechanism for making student opinion known to the AAMC. Students have two votes on the AAMC Executive Council and are recommended to standing committees. An elected representative from the University of Nebraska attends the AAMC Annual Meeting and the annual regional meeting of the Group on Student Affairs.

### **American Medical Student Association (AMSA)**

Over twenty thousand medical students in American medical schools are AMSA members. The AMSA chapter of the University of Nebraska College of Medicine is the eighth largest in the country and is one of the most influential. AMSA represents student views concerning health care delivery and all current medical issues. In addition, AMSA provides a

large number of valuable services to its members. For example, members can participate in a four-week preclinical experience called MECO in the summer after their first year. AMSA arranges for freshmen to spend time in the UNH Emergency Room and organizes many noon conferences and films of student interest. At Nebraska, AMSA has been especially influential in developing and establishing community services such as interdisciplinary health teams and health screenings.

### **Student National Medical Association**

The SNMA is a nonprofit corporate association of minority students in pursuit of a medical education. SNMA is dedicated to leadership development, social awareness, service to humanity, and excellence as a physician.

### **Student Association for Rural Health**

SARH was organized by students at the Medical Center to promote interest in health careers in rural areas of Nebraska. Outreach programs to youth in rural areas to encourage consideration of a health career have been developed. The Association also gives support to enrolled students who have expressed interest in rural health care delivery.

### **Alpha Omega Alpha**

A.O.A. is a nonsecret, national medical college honorary society. Membership is based upon scholarship and moral qualifications.

Elections conducted by the membership are limited to those whose scholastic record places them in the upper 25% of their class, but the total number of new members selected may not exceed one-sixth of the total number expected to graduate. The University of Nebraska's chapter was organized November 2, 1914.

### **Nebraska Medical Association — Medical Student Chapter**

The Nebraska Medical Association — Medical Student Chapter (NMA-MSA) is the official student branch of the Nebraska Medical Association designed to initiate student participation in organized medicine at an early stage in the future physician's medical career. Students from all medical school classes, through membership in the NMA-MSA, have the opportunity to become directly involved in NMA activities and to work alongside practicing physicians throughout the state of Nebraska. In addition to student chapter activities, members may become student representatives on active NMA commissions and become personally acquainted with practitioners in all medical specialties.

### **Student Section of Nebraska Academy of Family Physicians**

The student section of the NAFFP was formed to provide the students fuller exposure to the specialty of family practice and the education needed for this specialty. Meetings center around presentations of various residency programs generally from the midwest area. This organization also allows student participation at the state level and exposes students to organized medicine.

## FEES AND EXPENSES\*

Expenses of medical students include "educational expenses" and also "living expenses."

In 1985-86, a Nebraska resident enrolled in medicine (pre-clinical) will pay \$3,414 in tuition for nine months, \$107 in fees, and approximately \$839 for equipment and books.

Juniors and seniors in medicine attend twelve months and, if Nebraska residents, will pay \$4,552 in tuition, \$142 in fees, and approximately \$500 for equipment and books.

"Living expenses" are the major cost of being a student and cover room, board, transportation, and personal needs. Estimates are based principally on Department of Labor "national average consumption budget standards at a moderate level" and are as follows: nine months for single students (\$5,400), married student (\$8,100), and married student with one child (\$9,300); twelve months for a single student (\$7,200), married student (\$10,800), and married student with one child (\$12,400).

### Required Fees in 1985-86 Include:

Student Health Service fee (inpatient coverage for 12 months) . . .	\$139.00
Student Health Service fee (inpatient coverage for 9 months) . . . .	104.00
Medical Center Student Senate fee for 1 year . . . . .	3.00
Service charge for late payment of tuition . . . . .	20.00
Service charge for issuance of "bad" check . . . . .	3.00
Add/drop course . . . . .	5.00
Anatomy laboratory use fee . . . . .	65.00
Medical instruments, name tags, white jacket . . . . .	prices vary
(through the Bookstore)	
Transcripts of permanent record (first copy) . . . . .	3.00
Transcripts of permanent record	
(additional copies on same order) . . . . .	1.00
Replacement of photo identification card . . . . .	5.00
Microscope rental (1 year) . . . . .	30.00
Locker rental (1 year) . . . . .	5.00

### Refundable Deposits

Photo identification card . . . . .	1.00
Pre-enrollment deposit (applies to tuition) . . . . .	100.00
Key . . . . .	1.00

*\*Tuition, fees, and deposits are subject to change without notice. Additional laboratory fees may be established.*

### Tuition Refunds

A student who withdraws from the University during a term for which he/she is registered is entitled to claim a refund of tuition. The University's current policy for a refund of tuition is:

First week . . . . .	100%
Second week . . . . .	75%
Third week . . . . .	50%
Fourth week . . . . .	25%
Fifth week . . . . .	None

## **Microscopes**

University-owned microscopes are available for a small fee (\$30.00) for use in the teaching laboratory during scheduled laboratory and study sessions. However, students may find it advantageous to provide their own microscopes for full-time use. If so, the microscope should meet these qualifications: 3 objectives including 16mm, 4mm and oil immersion objectives, substage condenser and substage lamp or other illuminator, at least 10x oculars and mechanical stage.

---

## **FINANCIAL ASSISTANCE**

---

Financial aid programs are available to assist students with unmet financial need. The programs operate on the premise that students and parents have a responsibility to meet as much of the educational and related costs as possible. UNMC is prepared to supplement family contributions from its aid sources and to assist students in obtaining assistance from outside sources. The UNMC Office of Financial Aid administers the financial aid programs.

All financial aid programs administered by UNMC require annual application. Applicants need not apply for a specific scholarship or award as applicants are evaluated in terms of their eligibility for all forms of assistance. Applications for aid in which financial need is a consideration require students and parents to complete a financial statement (GAPSFAS/FAF). Application forms, instructions, and a Financial Aid Brochure are mailed to all students accepted for enrollment in a UNMC program. Financial statements for need-based programs are forwarded upon request.

The deadline to apply for scholarships and financial aid is March 1. Students receiving acceptances near or after March 1 are given a 30-day period in which to complete financial aid applications. Official notification of financial aid awards is made as early as possible before the start of each school year.

There are three basic types of financial aid available through UNMC: scholarships or grants, loans and student employment on a limited basis. Detailed information about the various sources of financial aid and estimated expenses is available upon request from the Office of Financial Aid.

## **Prizes and Awards**

A roster of the prizes and awards designated for outstanding performance in some basic courses and some clerkships, as well as in community service, is maintained by the Associate Dean for Academic Affairs. Donors include academic departments of the College, alumni, and several commercial firms. Selection of awardees is made by the appropriate academic departments.

---

## STUDENT HEALTH SERVICES

---

The Student-Employee Health Service is directed by Dr. Robert Bass, Chairman of the Department of Family Practice. The health service is designed to provide outpatient care for enrolled students and optionally for their dependents.

Routine health care — TB testing, immunizations, diagnosis and treatment of episodic illness — is provided in attractive surroundings by physicians associated with the health service. Participation is dependent upon payment of tuition and the student health service fee.

If specialized care is deemed necessary students will be referred to consultant specialists without additional charge.

Since costs of hospitalization and inpatient care are not covered for students or dependents, students are urged to obtain suitable health insurance. A policy is available through the Student Services Office.

---

## MINORITY STUDENT AFFAIRS OFFICE

---

The Office of Minority Student Affairs was created to assist the Medical Center in reaching its commitment to train health professionals for underserved communities in Nebraska as well as in other parts of the nation. Shortages of health professionals are particularly acute in minority communities. Therefore, Blacks, Chicanos and Native Americans are especially sought for careers in medicine, nursing, pharmacy, dentistry, and allied health.

UNMC Office of Minority Student Affairs is responsible for planning and implementing of programs for recruitment, admission, retention, and progression of ethnic minority students and economically disadvantaged students. Services include:

1. Personal and educational counseling on all UNMC colleges and programs including the College of Dentistry on the UNL Campus.
2. Assistance to accepted applicants in locating suitable housing and jobs for the spouses.
3. Establishment of an Academic Support Program for enrolled students.
4. Advisory support to the Student National Medical Association (SNMA).
5. Social and cultural functions for enrolled students and local preprofessional students.
6. Summer enrichment programs for college students interested in the health professions.
7. Various motivational activities for local high school students.

Additionally, the Office of Minority Student Affairs serves as a resource for groups and departments sponsoring cultural awareness activities for all students and employees of the Medical Center and for the public.

For further information, please contact:

Minority Student Affairs  
UNMC  
42nd and Dewey Avenue  
Omaha, Nebraska 68105  
(402) 559-4437

TEXTBOOK  
OF  
MEDICINE

TEXTBOOK  
OF  
MEDICINE

TEXTBOOK  
OF  
MEDICINE

ADULT INTENSIVE CARE UNIT





---

## DEPARTMENTS OF INSTRUCTION

---

### ANATOMY

**PROFESSORS** William K. Metcalf (Chairman), M.B., B.S. (M.D.) 1943 Durham (England) M.D. 1960 Bristol (England), Alvin M. Earle, Ph.D. 1962 Co. (Vice-Chairman), Ph.D. 1963 Ne., Robert T. Binhammer, Ph.D. 1955 Tx., Charles A. Blake, Ph.D. 1972 Ca. at L.A., Paul J. Gardner, Ph.D. 1963 Ne., Edward A. Holyoke, M.D. 1943, Ph.D. 1938 Ne., John S. Latta (Emeritus), Ph.D. 1920 Cornell, Norah F. Metcalf, M.B., B.S. (M.D.) 1943 Durham (England), John G. Sharp, Ph.D. 1971 Birmingham (England); **ASSOCIATE PROFESSORS** David A. Crouse, Ph.D. 1974 Ia., Ernest D. Prentice, Ph.D. 1976 Ne., Jorge F. Rodriguez-Sierra, Ph.D. 1976 Rutgers, Warren W. Stinson, Ph.D. 1970 Ok., Gordon L. Todd III, Ph.D. 1972 Ga. **ASSISTANT PROFESSOR** James B. Turpen, Ph.D. 1973 Tulane

In this department, instruction is given in all phases of human morphology, including gross, microscopic, embryological and neurological anatomy.

Every effort is made to correlate the teaching with related basic and clinical fields in order to establish the relevance of morphological studies to problems of clinical medicine. The basic courses are established as core courses presenting fundamentals of universal importance. Opportunity is provided for additional study through a selection of elective courses.

### ANATOMY — 04

- 510 Human Gross Anatomy I** (4 s h cr) W., Metcalf (810G)  
The course covers the dissection of the upper extremity, head and neck, and thorax.
- 511 Histology I** (2 s h cr) Earle (811G)  
A study of cells and fundamental tissues with the light microscope. Ultrastructure is also emphasized. The microscopic structure of organ systems is introduced.
- 512 Neuroanatomy** (2 s h cr) Earle (812G)  
This course provides a study of the neuronal organization of the nervous system and how the inter-neuronal relationships serve as a basis to explain the function of the sensory and motor systems. The medical aspects of the structural and functional organization are demonstrated from clinical case material.
- 513 Human Embryology I** (2 s h cr) Metcalf (813G)  
A course specially designed to meet the needs of medical and paramedical students destined for clinical practice. Only those features of morphological embryology which are of clinical importance will be stressed. It includes embryogenesis, placentation and development of the nervous system.
- 520 Human Gross Anatomy II** (2 s h cr) Metcalf (820G) (Prerequisite 510)  
A dissection of the abdomen and lower extremity. (A continuation of Human Gross Anatomy I.)
- 521 Histology II** (2 s h cr) Earle (823G) (Prerequisite 510)  
A continuation of Histology I and the microscopic study of the organ systems.
- 523 Human Embryology II** (1 s h cr) Metcalf (823) (Prerequisite 513)  
A continuation of Human Embryology I involving a study of the morphogenesis of organ systems.
- 19-540 Clinical Medicine/Living Anatomy** (2 s h cr) Metcalf  
An introduction to Physical Examination correlating dissecting room anatomy with the anatomy of the living.
- 19-542 Clinical Medicine/Living Anatomy** (1 s h cr) Metcalf (Prerequisite 540)  
A continuation of 540.

### ELECTIVES

NOTE: Prerequisite for all elective courses is by permission.

#### Special Studies in Anatomy, Staff

Students are offered the opportunity to pursue studies in the various fields indicated beyond that given in the basic courses. The work will consist of lectures, demonstrations, designed readings or laboratory work, depending on the nature of the material and the hours of registration. Full credit indicated can be achieved by re-registration in a course should a student elect to do so. Students should contact the Chairman of the Department for information relative to arranging for any of these courses.

- 530 Cross-Sectional Anatomy** — (2 s h cr) Second Semester (Stinson)

- 612 **Electron Microscopy** — (1-3 s h cr) Summer Session (Stinson)  
 620 **Embryology** — (1-3 s h cr) Second Semester (N. Metcalf)  
 621 **Teratology** — (1-3 s h cr) Second Semester (Staff)  
 622 **Neuroanatomy** — (1-3 s h cr) Second Semester (Earle)

**Applied Anatomy** (1-4 s h cr) Stinson, Staff

Demonstrations, dissections, and lectures covering the gross, topographical and surgical aspects of human anatomy. Special emphasis will be placed on clinical applications.

- 626 **Extremities**  
 628 **Thorax**  
 629 **Head and Neck**  
 630 **Topographic Anatomy**  
 632 **Pelvis and Perineum**  
 690 **Research in Anatomy**, Staff

Prerequisite: Arrangement with department staff.  
 Work can be carried out in any of the subdivisions of Anatomy.

- 732 **Basic Science Clerkship** (4 s h cr) Staff

**ANESTHESIOLOGY**

**PROFESSORS** Daniel W. Wingard, M.D. 1959 West. Res., Clold D. Green, M.D., Clinical Professor; **ASSOCIATE PROFESSORS** James W. Chapin, M.D. 1972 Ne., Denis J. Cuka, M.D. 1958 Creighton, Barbara J. Hurlbert, M.D. 1971 Ne., K. Reed Peters, M.D. 1975 Ne. (Interim Chairman); **ASSISTANT PROFESSORS** Roger Ganfield, M.D. 1973 Miami, Patrick Nance, M.D. Clinical Assistant Professor, Myrna C. Newland, M.D. 1964 Ne., K. Reed Peters, M.D. 1975 Ne.; **VOLUNTEER FACULTY** Sreela G. Bannerjee, M.D., Kenneth P. Barjenbruch, M.D. 1965 Ne., John L. Barmore, M.D. 1946 Ne., David A. Baxter III, M.D. 1968 Ne., Carl L. Boschult, M.D. 1966 Ne., Russell C. Brauer, M.D. 1951 Ne., Peter C. Chilian, M.D. 1973 Co., Eugene C. Fisher, M.D. 1961 Ne., Muriel N. Frank, M.D. 1943 Ne., John L. Gordon, M.D. 1959 Creighton, Clold D. Green, M.D. 1946 Mn., William C. Melcher, M.D. 1956 Ne., Terence R. Newman, M.D. 1980 Belfast, Patrick Nance, M.D. 1978 Ne., J. Patrick O'Gara, M.D. 1962 Ne., Gail E. Walling, M.D. 1961 Ne.

The curriculum in Anesthesiology aims to introduce the student to the broad aspects of anesthesiology, management of the comatose patient, and the problems of the perioperative period.

We hope to accomplish this by giving a better understanding of applied respiratory physiology, teaching respiratory and circulatory resuscitation, recognition and management of patients with acute and chronic respiratory problems. The student will have the opportunity to handle acute problems and make rapid decisions under supervision.

Courses of study involve familiarizing the student with some anesthetic agents and adjuvant drugs, thus adding to the understanding of clinical pharmacology and making him/her aware of the problems involved in evaluating and preparing a patient for the physiologic and psychological changes associated with the perioperative period.

**ANESTHESIA — 06**

**Clinical Medicine III** (Incorporated in 19-560, 562)

Seminar and laboratory course during second year designed to provide an understanding of some of the common causes and mechanisms of sudden death, and to learn skills in an effective approach to resuscitation and life support.

720 **Anesthesia Clerkship** (Dr. Hurlbert)

Periods offered: 4 or 8 weeks

Student limit: 8

Semester hours: 4

Opportunity to gain an understanding of preoperative evaluation and preparation of patients for anesthesia and operation, clinical pharmacology of adjunctive drugs and anesthetic agents, respiratory physiology, principles of resuscitation, care of the unconscious patient, inhalation therapy, and approach to the control of pain.

725 **Intensive Care Clerkship** (Seniors only by previous arrangement); Dr. Hurlbert

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

Opportunity to gain an understanding of an experience in the application of life support measures for patients requiring ventilatory and circulatory assistance outside the operating room.

**760 Off-Campus Anesthesiology (Dr. Hurlbert)**

Periods offered: Each 4-8 weeks

Semester hours: 4

Arrangements in other medical centers can be made for extraordinary learning experiences not readily available within our facilities. The Department of Anesthesia faculty will be pleased to work with the student interested in an extramural clerkship when credit for this clerkship is desired.

**772 Anesthesiology Residency**

A three- to four-year educational program with gradually increasing responsibility. The trainee develops skills and knowledge in the pharmacology of anesthetic agents, the administration of regional and general anesthesia, and the preoperative and postoperative care of patients. The resident also receives training in critical care medicine, pain and respiratory therapy. In keeping with the career goals of the trainee, special programs in subspecialty areas and research methods are available.

**799 Research in Anesthesia (Limit by arrangement)**

Opportunity to select an area of interest from the aims of anesthesia clerkship for more intense study. Definition of problems and program of learning to be decided upon discussion with faculty.

**ANESTHESIA GENERAL EXERCISES**

**Anesthesia Lecture** (Every Monday and Tuesday — 7-7:45 a.m.)

**Anesthesia Residents Seminars** (Every Thursday, 7-7:45 a.m.)

**Case Discussion** (Every Wednesday, 7-7:45 a.m.)

**Resident Journal Club** (Selected Fridays, 7-7:45 a.m.)

**BIOCHEMISTRY**

**PROFESSORS** Anthony J. Barak, Ph.D. 1953 Mo., Edward Bresnick, Ph.D. 1958 Fordham, John H. Copenhaver, Ph.D. 1963 Ks., Denham Harman, Ph.D. 1943 Ca., M.D. 1954 Stanford, Robert F. Ramaley, Ph.D. 1964 Mn., Wayne L. Ryan, Ph.D. 1953 Mo., Richard B. Tobin, M.D. 1949 Rochester; **ASSOCIATE PROFESSORS** Ercole Cavaliere, D.Sc. 1962 Milan (Italy), Alan Eastman, Ph.D. 1975 London, Margaret L. Heidrick, Ph.D. 1970 Ne., John F. Hofert, Ph.D. 1963 Wi., John A. Johnson, Ph.D. 1971 Mn., Louis Lippiello, Ph.D. 1973 Cornell, Theodore A. Mahowald, Ph.D. 1957 St. Louis, Sidney S. Mirvish, Ph.D. 1955 Cambridge, C. Kirk Phares, Ph.D. 1971 Louisiana State (Acting Chairman), Dean J. Tuma, Ph.D. 1973 Ne.; **ASSISTANT PROFESSORS** Terrence M. Donohue, Ph.D. 1978 Ne., Ronald Hines, Ph.D. 1980 Tx., E. Gayle Schneider, Ph.D. 1974 Harvard, Jill Pelling, Ph.D. 1979 Mi., David J. Volsky, Ph.D. 1979 Jerusalem.

In addition to a curriculum of required and elective courses for medical students, the department also offers: 1) graduate-level courses (800-999 series) each semester to graduate students working for a M.S. or Ph.D. degree in Biochemistry or related disciplines and 2) courses in basic biochemistry that are tailored to fit the needs of students in the Physical Therapy Education Program (305), the Physician Assistant Education Program (308), and the College of Nursing (315).

**BIOCHEMISTRY — 08**

**305 Physical Therapy Education Biochemistry (1 s h cr, F)**

This is a survey course in which the basic concepts of protein, carbohydrate and lipid metabolism are presented. The mechanisms for energy production and metabolic control are also studied from a conceptual viewpoint.

**308 Physician Assistant Biochemistry (5 s h cr, F)**

This course covers the fundamental aspects of cellular biochemistry. The major areas of carbohydrate, protein, lipid, amino acid and nucleic acid chemistry and metabolism are covered. In addition, protein synthesis and genetic control, biological oxidation and enzyme chemistry and kinetics are studied. Nutrition and biochemical endocrinology are also surveyed.

**315 Biochemistry (3 s h cr)**

This is a three-semester course offered to nursing students on the Lincoln Campus and at other off-campus locations. It covers essentially the same basic subject areas as those listed under 315 except the lectures are presented on 32 fifty-minute videotapes. A syllabus which was specially written for use with the tapes is available.

- 510 Biochemistry I** (5 s h graduate cr, F) (810G)  
This course includes all the fundamental aspects of cellular biochemistry through basic intermediary metabolism. The chemistry and metabolism of carbohydrates, proteins, lipids, amino acids and nucleic acids are covered. In addition, protein synthesis and genetic control, biological oxidations, and enzyme chemistry and kinetics are studied.
- 511 Biochemistry II** (2 s h graduate cr, S) (811G)  
Prerequisite: 510/810 or its equivalent  
This course includes the study of the biochemistry of the endocrine system and special tissues such as connective tissue and blood. Biochemical aspects of nutrition as detoxication of foreign substances are also discussed.
- 596 Research Projects** (credit and time by arrangement)  
The student may choose from a variety of research projects dictated by individual faculty members. The student helps to plan the project, learns to perform the techniques and methods needed, collects the data, and helps to summarize and interpret the results.
- Series of Advanced Topics in Biochemistry** (3 s h cr per subdivision except Special Topics)  
See below.  
The subdivisions below constitute a comprehensive and advanced coverage of the chemistry and intermediary metabolism involved in the major areas of biochemistry:
- 720 Enzymes** — Mahowald (920G)  
**722 Carbohydrates** — Hofert and Staff (922G)  
**724 Proteins** — Staff (924G)  
**726 Nucleic Acids** — Cox (926G)  
**728 Endocrine and Cellular Regulation** — Heidrick and Phares (928G)  
**730 Lipids and Membranes** — Schneider (930G)  
**740 Special Topics** (1-3 s h graduate credit) Staff

## FAMILY PRACTICE

**ASSOCIATE PROFESSOR** Robert L. Bass (Chairman), M.D. 1956 Ne., **PROFESSORS** Margaret E. Faihne, M.D. 1954 Western Reserve, Ne., **ASSOCIATE PROFESSORS** Jerry L. Authier, Ph.D. 1973 Portland, Ralph L. Cassel, M.D. 1944 Ne., Kashinath D. Patil, Ph.D. 1971 Wa.; **ASSISTANT PROFESSORS** Daniel Halm, M.D. 1975 Ne., Jeffrey Hill, M.D. 1977 Ne., Diane Logan, Ph.D. 1980 Georgia, Morris Mellion, M.D. 1970 Yale, Paul Paulman, M.D. 1977 Ne., Michael Sitorius, M.D. 1977 Ne., Valgene Valgora, P.A. 1972 Duke, M.S. 1975 Wichita State, Douglas Wheatley, M.D. 1978 Mo., **CLINICAL PROFESSOR** Michael J. Haller, M.D. 1961 Creighton; **CLINICAL ASSOCIATE PROFESSORS** William Long, M.D. 1952 Ne., Hiram R. Walker, M.D. 1954 Ne.; **CLINICAL ASSISTANT PROFESSORS** K. Don Arrasmith, M.D. 1961 Ne., Charles F. Ashby, M.D. 1942 Ne., Kenneth C. Bagby, M.D. 1960 Ne., Melvin Bechtel, M.D. 1962 Ne., William C. Becker, M.D. 1962 Ne., Russell Beran, M.D. 1963 Mn., John B. Byrd, M.D. 1969 Ne., David H. Fillipi, M.D. 1974 Ne., Richard D. Gentry, M.D. 1957 Ne., Leslie I. Grace, M.D. 1954 Ne., Harris B. Graves, M.D. 1952 Ne., Klemens Gustafson, M.D. 1966 Ne., Donald J. Larson, M.D. 1962 Ne., James S. Long, M.D. 1954 Ne., Michael McCoy, M.D. 1973 Ne., Dean A. McGee, M.D. 1946 Ne., Clyde A. Medlar, M.D. 1952 Ne., Raymond H. Olson, M.D. 1956 Ne., Robert E. Quick, M.D. 1958 Ne., James E. Ramsay, M.D. 1946 Ne., Lawrence Rudolph, M.D. 1961 Ne., Robert M. Stryker, M.D. 1958 Ne., Robert Westbrook, M.D. 1958 La., Donald E. Wilkinson, M.D. 1956 Ne., Orlyn H. Wingert, M.D. 1973 Ne., Charles Bressman, M.D., Theodore Koefoot, M.D., Donald Matthews, M.D., C. Lee Retelsdorf, M.D., Clarence Zimmer, M.D.; **CLINICAL INSTRUCTORS** Robert Anderson, M.D. 1957 Ne., William Bailey, M.D., John L. Batty, M.D. 1938 Ne., Robert Beer, M.D. 1978 Ne., Richard Bell, M.D. 1981 Ne., Timothy Blecha, M.D. 1979 Creighton, Arden H. Bonebrake, M.D. 1947 Ia., Vernon Bruce, M.D., Gerry Bunting, M.D., James S. Carson, M.D. 1959 Ne., Ronald Craig, M.D. 1970 Ne., Douglas Curry, M.D., Daniel Dietrich, M.D., Stuart P. Embury, M.D. 1969 Ne., Milferd Epp, M.D., Wendell Fairbanks, M.D., Alan Fisher, M.D., Bruce D. Forney, M.D. 1972 Ne., Gordon Francis, M.D., James Frans, M.D., Harold Gentry, M.D., John George, Ph.D., A. Dean Gilg, M.D. 1961 Ne., Dennis Goeschel, M.D. 1974 Ne., Stephen R. Grenier, M.D. 1973 Ne., Dennis Hatch, M.D. 1975 KU, William Heusel, M.D., John J. Hinrichs, M.D. 1968 Ne., Allen Hohensee, M.D., John Huscher, M.D. 1978 Ne., Steven Husen, M.D. 1975 Ne., Richard Jackson, M.D., Loren Jacobsen, M.D., Gordon O. Johnson, M.D., John Kirchner, M.D., Thomas Laird, M.D., Glen Lau, M.D., Theodore Lemke, M.D., Paul R. Madison, M.D. 1972 Ne., Ben O. Martin, M.D., Warren Miller, M.D., Charles Muffly, M.D., Gary Penner, M.D. 1974 Ne., Paul Plessman, M.D. 1969 Ne., Douglas Pope, M.D., Harold Pumphrey, M.D., Dwight F. Rickard, M.D. 1963 Ne., Robert Roth, M.D. 1975 Ne., David Rutz, M.D., John Shaffer, M.D. 1964 Tulane, Bryce Shopp, M.D., Keith Shuey, M.D., Dwight Snyder, M.D., Daniel Steier, M.D.,

Jeffrey Susman, M.D. 1981 Dartmouth, Richard Tollefson, M.D., David Weeks, M.D., Frank Weirman, M.D. 1972 Hahnemann Med. Center, Irving Weston, M.D. 1957 Ne., Wayne Weston, M.D. 1965 Ne., Wayne Zlomke, M.D. 1956 Ne.; **INSTRUCTORS** Mary Ann Manners, M.S.P.H. 1977 Mo., Jacqueline Krier, M.S.W. 1978 Ne. at Omaha, Gerald Pierce, A.C.S.W. 1978 Ne., **ADJUNCT ASSISTANT INSTRUCTOR** Cedric W. Prange, M.B.A. 1969 Ne.; **SENIOR CONSULTANTS** Allen B. Anderson, M.D. 1921 Ne., Walter Benthack, M.D. 1924 Ne., George A. Haslam, M.D. 1924 Penn., Clifford D. Howard, M.D. 1934 Ne., **CLINICAL ASSOCIATES** Ivan G. Abdouch, M.D. 1977 Ne., Allen Alderman, M.D. 1954 Ne., David A. Allerheiligen, M.D. 1975 Ne., James E. Bare, M.D. 1962 Ne., Robert B. Barnwell, M.D. 1959 Ne., Charles Barton, M.D. 1975 Ne., Craig Bartruff, M.D. 1973 Ne., James Bell, M.D. 1947 Ne., Ronald C. Bell, M.D. 1965 Ne., Robert Benthack, M.D. 1947 Ne., Emanuel C. Beyer, M.D. 1967 Wayne St., Timothy Biga, M.D. 1973 Ne., Richard A. Blatny, M.D. 1969 Ne., Norval L. Books, M.D. 1973 Ne., Paul Bottom, M.D. 1962 Ne., Andrew Brainard, M.D. 1979 Ne., Richard Brouillette, M.D. 1965 Ne., Robert E. Butler, M.D. 1952 Ne., Melvin A. Campbell, M.D. 1974 Ne., James G. Carlson, M.D. 1959 Ne., Kaye B. Carstens, M.D. 1971 Ne., Frederick D. Catlett, M.D. 1973 Ne., Richard D. Clark, M.D. 1969 Ne., Gary L. Conell, M.D. 1971 Ne., Carl J. Cornelius, M.D. 1951 Creighton, James D. Crew, M.D. 1976 Ne., Calvin Cutright, M.D. 1966 Ne., Rodney Czaplewski, M.D. 1974 Ne., Clarence J. Davis, M.D. 1956 Tn., Earl J. Dean, M.D. 1954 Ne., David Demuth, M.D. 1975 Ne., John Denker, M.D. 1959 Ne., William Doering, M.D. 1949 Ne., William B. Eaton, M.D. 1956 Ne., Gary R. Ensz, M.D. 1976 Wa., Charles E. Fellows, M.D. 1962 Ne., John Finkner, M.D. 1952 Ne., Richard D. Fitch, M.D. 1969 Ne., Gerald Fleischli, M.D. 1967 Stanford, John M. Ford, M.D. 1968 Creighton, Richard O. Forsman, M.D. 1968 Ne., Ivan M. French, M.D. 1943 Ne., Richard Fruehling, M.D. 1971 Ne., Walter Gardner, M.D. 1975 Ne., Donald M. Gentry, M.D. 1968 Ne., R. David Glover, M.D. 1967 Ne., Lee B. Grant, M.D. 1945 Louisville, Michael J. Hanich, M.D. 1974 Ne., John E. Hansen, M.D. 1955 Ne., Manju Hapke, M.D. 1975 Seth G.S.M.C., Walter C. Harvey, M.D. 1947 Ne., George Harris, M.D. 1956 Ne., Marvin E. Holsclaw, M.D. 1966 Ne., Douglas L. Holtmeier, M.D. 1974 Ne., Edward Holyoke, M.D. 1970 Ne., Joel F. Hutchins, M.D. 1970 Ne., Joedy Istas, M.D. 1979 Ne., Mark E. Janulewicz, M.D. 1975 Ne., David E. Jenny, M.D. 1968 Ne., Harold G. Johnson, M.D. 1965 Ne., Kenneth L. Johnson, M.D. 1959 Ne., Richard N. Johnson, M.D. 1950 Ne., Mark P. Jones, M.D. 1977 Ne., Harold W. Keenan, M.D. 1965 Ne., Gary Klein, M.D. 1979 Ne., Ron Klutman, M.D., Duane G. Koenig, M.D. 1966 Ne., Bart Kolste, M.D. 1980 Ne., Kent Lacey, M.D., Larry Lamberty, M.D. 1976 Ne., Allan C. Landers, M.D. 1958 Ne., Alan Langvardt, M.D. 1972 Ne., Dwight L. Larson, M.D. 1953 Ne., Kurt Lesh, M.D. 1979 Ne., James A. Lindau, M.D. 1973 Ne., Darroll J. Loschen, M.D. 1963 Ne., Gerald W. Luckey, M.D. 1973 Ne., Thomas G. Magruder III, M.D. 1956 Ne., Paul D. Marx, M.D. 1937 Ne., Roger D. Mason, M.D. 1952 Ne., Roger P. Massie, M.D. 1970 Ne., Maurice D. Mathews, M.D. 1959 Ne., Thomas McKnight, M.D. 1977 Ne., David C. McMaster, M.D. 1972 Ne., Charles E. McMinn, M.D. 1970 Ne., Daniel N. Mergens, M.D. 1953 Creighton, Kent Meyers, M.D. 1975 Ut. Dale Michels, M.D. 1973 Ne., Otis W. Miller, M.D. 1951 Ne., William Minier, M.D. 1972 U. of Chicago, James E. Monaghan, M.D. 1953 Co., Donald H. Morgan, M.D. 1952 Ne., Debbie Mostek, M.D. 1979 Ne., Stanley T. Mountford, M.D. 1961 Ne., Stanley F. Naby, M.D. 1949 Jefferson, Delwyn J. Nagengast, M.D. 1956 Creighton, Donna Nelson, M.D. 1978 Ne., James D. Nelson, M.D. 1974 Ne., Lyle W. Nilson, M.D. 1957 Ne., Harold Nordlund, M.D. 1955 Ne., James L. Omel, M.D. 1974 Ne., Robert G. Pelley, M.D. 1961 Ne., Kenneth Peters, M.D. 1970 Ne., Ronald I. Peterson, M.D. 1959 Ne., George E. Place, M.D. 1942 Ne., James M. Plate, M.D. 1974 Ne., Leslie C. Potts, M.D. 1954 Ne., Donald Prescher, M.D. 1959 Ne., Donald F. Prince, M.D. 1957 Ne., Henry J. Quiring, M.D. 1957 Ne., Gary Rademacher, M.D. 1972 Ne., Richard Raymond, M.D., Richard K. Reiner, M.D. 1979 Ne., Harry Salyards, M.D. 1974 Ne., Phyllis Salyards, M.D. 1974 Ne., Myron E. Samuelson, M.D. 1946 Ne., Steven Schulz, M.D. 1979 Ne., Paul M. Scott, M.D. 1942 Ne., Steven A. Senseney, M.D. 1975 Creighton, Clayton T. Shaw, D.O. 1974 Col. of Osteo., Ronald J. Sheppard, M.D. 1971 NJ College, Floyd H. Shiffermiller, M.D. 1950 Ne., Harold Sievers, M.D., Rudolph F. Sievers, M.D. Ph.D. 1939 Ne., Berl W. Spencer, M.D. 1960 Ne., James M. Steier, M.D. 1973 Ne., Lowell A. Stratton, M.D. 1971 Ne., George Surber, M.D. 1972 Ne., Harold W. Thaut, M.D. 1972 Ne., Victor J. Thoendel, M.D. 1970 Ne., Steven R. Thomas, M.D. 1970 Ne., William Thompson, M.D. 1976 Ne., Dean Thomson, M.D., My Chu Tran, M.D. 1972 Saigon, Robert G. Travnick, M.D. 1965 Ne., Kenneth R. Treptow, M.D. 1953 Ne., Robert Tuma, M.D. 1974 Ne., Robert E. Underriner, M.D. 1951 Creighton, Gary Vandeweg, M.D. 1975 Ne., Milton G. Waldbaum, M.D. 1956 Ne., James H. Walston, M.D. 1949 Northwestern, Carl A. Walvoord, M.D. 1944 Ne., Robert C. Weldon, M.D. 1959 Ne., Bernard F. Wendt, M.D. 1949 Ne., Michael Westcott, M.D. 1975 Ne., John C. Wilcox, M.D. 1972 Ne., Wesley G. Wilhelm, M.D. 1964 Creighton, Steve Williams, M.D. 1979 Ne., Larry Wilson, M.D. 1975 Ne., Rex W. Wilson, M.D. 1953 Mi., Willis Wiseman, M.D. 1970 Ne.

The objective of this department is to prepare students to carry out their functions as leaders and coordinators of health care teams as they provide access to the health system and assume continuing responsibility for management of patients over a long period of time. More specifically, the program is designed to do the following:

1. Provide a stimulating experience in a model of family practice which will infuse the student with a philosophy of family practice and an understanding of the role of the family physician.
2. Help the student acquire excellent skills in diagnosis, treatment, and management of patients and technical procedures appropriate for family practice.
3. Help the student acquire the knowledge and appropriate depth in various fields of medicine encompassed by family practice.
4. Provide opportunity for the student to develop mature clinical judgment and appreciation of the limitation of his or her competence.
5. Provide understanding of research and methodology in problems relating to the delivery of health services.
6. Encourage students to develop life-long habits of learning and an understanding of the role of continuing education in maintaining professional excellence.

#### **FAMILY PRACTICE — 18**

##### **Principles of Primary Care** (Incorporated in 19-560, 562)

This course introduces the student to the following basic components of primary care: Importance of family interacting in treatment, health care teams, patient participation, prevention, a consultant, and use of community resources.

##### **Epidemiology** (Incorporated in 19-560, 562), Patil

Introduction to statistical analysis, community health, occupational and environmental health, and economics of health care.

##### **705. Community Preceptorship** (Required)

Periods offered: Each 8 weeks

Student limit: None

Semester hours: 8

Prerequisite: Completion of three basic clerkships

This is a clerkship with a solo, dual, or group practice in which the student is afforded the opportunity of observing a local community and its inter-relationships with the practice of medicine in that community.

##### **720 Family Health Center — University Hospital Clerkship**, Wheatley and Staff

Periods offered: Each 4 weeks except for the month of July

Student limit: 1

Semester hours: 4

##### **722 Family Health Center — South Omaha Clerkship**, Paulman

Periods offered: Each 4 weeks except for the month of July

Student limit: 1

Semester hours: 4

A clinical experience at the University satellite clinic located at 5211 South 31st Street. Covers all clinical areas. Full-time and volunteer faculty.

##### **727 Inpatient Service** (UNMC)

Students are given externship responsibilities commensurate with experience under the direct supervision of the Family Practice resident, chief resident and inpatient attending physician. The inpatient service admits patients from the three Family Practice clinics, from the ER or Family Practice referral patients from outstate Nebraska.

##### **728 Family Practice Clerkship — Nebraska Methodist Hospital**

Periods offered: Each 4 weeks (by arrangement when resident is not assigned)

Student limit: 1

Semester hours: 4

A clinical experience, both inpatient and outpatient, on the Family Practice service. Average monthly census of patients per volunteer faculty is 25. Particularly recommended for early clinical experience.

##### **730 Family Practice Clerkship — Lincoln General Hospital**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

A clinical experience, both inpatient and outpatient, on the Family Practice service. Average monthly census of patients per volunteer faculty member is 25.

##### **732 Community Emergency Room — Methodist Hospital**

Periods offered: By arrangement only

Student limit: 1 (senior status)

Semester hours: 4

This is an experience at the Methodist Hospital and will show the operation of a community emergency room in a large community by full-time staff who are also volunteer faculty of the College of Medicine.

- 733 Community Emergency Room — Lutheran Hospital**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Same as 732 except for location.
- 734 Community Emergency Room — Immanuel Hospital**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Same as 732 except for location.
- 735 Community Emergency Room — Lincoln General Hospital**  
 Periods offered: Each 4 weeks  
 Student limit: 1 (senior status)  
 Semester hours: 4  
 Same as 732 except for location.
- 736 Community Emergency Room — University Hospital**  
 Periods offered: TBA  
 Student limit: 1  
 Semester hours: 4  
 Where to report: TBA, check with Dr. Loeb extension 4020
- 760 Private Practice Office Clerkship**  
 Periods offered: Each 4 weeks  
 Student limit: None  
 Semester hours: 4  
 This clerkship offers a chance to participate in and observe private practice in family physicians' offices in Omaha.
- 761 Family Practice Off-Campus Elective**  
 Periods offered: Each 4 weeks  
 Student limit: None  
 Semester hours: 4  
 This clerkship offers a chance to participate in and observe an off-campus elective in an out-of-state locale of the student's choice.
- 762 Migratory Health**  
 Periods offered: April, May, June, July  
 Student limit: 1  
 Semester hours: 4  
 The student will participate in the Nebraska Migrant Health Project in Gering, Nebraska as a member of the health team in the Family Practice Clinics and other activities.
- 763 Off-Campus Elective in Community Health, Patil, Bass, M. Faithe**  
 Periods offered: Each 4 weeks  
 Student limit: 3 (by arrangement)  
 Semester hours: 1-6 (by arrangement)  
 This elective is to enable students to obtain credit for educational experiences related to community health which are off-campus. Students traveling in foreign countries who are interested in studying other health work, occupational medicine, or medical computing are those for whom it is intended. There is also the capability to secure experience in health maintenance through injury and environment control, health fitness testing, and athletic medicine.
- 766 Community Health Care (MECO)**  
 Periods offered: Each 4 or 8 weeks  
 Student limit: By arrangement  
 Semester hours: None  
 Medical Education Community Orientation Project is sponsored and arranged by the American Medical Student Association for pre-clinical medical students.
- 772 Family Practice Core Residency**  
 This full-time three-year program of clinical assignments, plus seminars and conferences, has been designed to prepare the physician to meet the demand for a single, competent primary physician for the entire family. The program is flexible enough to allow the physician to elect assignments based on his interest and needs. Specific assignments include one-half day per week in each of the three Family Health Centers (University Hospital, Dodge Street and South Omaha) and a four-month experience in one of the outstate Nebraska community hospitals affiliated with the Medical Center.

#### 774 Family Practice Fellowship

During this year-long advanced program, the physician will continue his/her residency training on a half-time basis. He/She will also assume half-time responsibilities in the department's teaching activities with faculty status of instructor. Open to physicians who have completed a three-year residency in an accredited program or are diplomates of the American Board.

#### 799 Research Project in Family Practice

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

Students may select projects in which they are particularly interested and, with the approval of the faculty, may pursue these projects intensively for four weeks. Such projects might be concerned with the delivery of health care or with the value of screening procedures. Faculty advice will be given and the research project will be structured.

### INTERDEPARTMENTAL

#### INTERDEPARTMENTAL — 19

#### 518 Human Genetics, Sanger, Buehler (1 s h cr)

Current principles and concepts of human genetics are discussed. Examples of gene and chromosome disorders, their mechanisms, and possible etiologies are presented. Stress is placed upon an integration of both basic science and clinical points of view. Procedures of genetic counseling are discussed throughout.

#### 540 Clinical Medicine — Living Anatomy (2 s h cr, 1st semester)

Introduction to physical diagnosis, correlated with Gross Anatomy.

#### 542 Clinical Medicine — Living Anatomy (1 s h cr, 2nd semester)

See 540.

#### 650/652 Introduction to Clinical Medicine (6 s h cr, 1st semester)/(6 s h cr, 2nd semester)

Dr. Moore and Staff

Further skills in history and physical examination will be taught and correlated with the pathophysiology of disease states. Specialized skills, epidemiology, aging, and interpersonal relationships will be discussed. Didactic lectures will be supplemented with small group discussions. Each student will be given an opportunity to learn specialized procedures and physical diagnosis in small groups utilizing real and simulated patients.

#### 709 Geriatric Clerkship I, Dr. Potter

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: None

Requires: Automobile

Geriatric and gerontologic health care practices are the focus for this clerkship. Several long-term care organizations are used as teaching resources as well as sites in the community. Included are a rehabilitation hospital, an outpatient geriatric clinic, a home health agency, nursing homes, a day care center and other organizations providing care to the elderly. Emphasis is on sound treatment methods, successful practices and programs, and on the special and often recurring health needs of the older patient.

### INTERNAL MEDICINE

**PROFESSORS** Michael F. Sorrell (Chairman), M.D. 1959 Ne., Robert E. Ecklund (Vice Chairman), M.D. 1957 II., Charles E. Andrews, M.D. 1949 Boston Univ., Richard B. Davis, M.D. 1953 Ia., Ph.D. 1964 Mn., Toby R. Engel, M.D. 1966 NYU, John F. Foley, M.D. 1955 Buffalo, Ph.D. 1963 Mn., Ramon M. Fusaro, M.D. 1953, Ph.D. 1965 Mn., Robert Grissom, M.D. 1941 II., Denham Harman, M.D. 1954 Stanford, Ph.D. 1943 Ca., Henry M. Lemon, M.D. 1940 Harvard, George W. Loomis, M.D. 1947 Ne., John J. Matoole, Jr., M.D. 1957 Creighton, Frederick F. Paustian, M.D. 1953 Ne., Joseph C. Shipp, M.D. 1952 Columbia, Jan Smith, M.D., Ch.B. 1961, Daniel B. Stone, M.D. 1948 London, Richard Tobin, M.D. 1949 Rochester, Frederick Ware, M.D. Ph.D. 1956 Ne.; **ASSOCIATE PROFESSORS** James O. Armitage (Vice Chairman), M.D. 1973 Ne., Louis W. Burgher, M.D. 1970 Ne., David A. Burnett, M.D. 1972 Ne., John C. Davis III, M.D. 1957 Ne., John R. Feagler, M.D. 1967 Wa., Thomas F. Gallagher, M.D. 1962 Chicago, Jonathan C. Goldsmith, M.D. 1971 NY, John A. Johnson, Ph.D. 1971 Mn., James Karnegis, M.D. 1954 Northwestern, Ph.D. 1964 Mn., David H. Kay, Ph.D. 1972 Ia., Margaret A. Kessinger, M.D. 1967 W. Va., Lynell

W. Klassen, M.D. 1973 Ks., Thomas Knight, M.D. 1972 Ne., Jai Kyoung Koh, M.D. 1960 Seoul, Leeroy Meyer, M.D. 1961 Ne., Stephen I. Rennard, M.D. 1975 Baylor, Helen Starke, M.D. 1942 Duke, Dean J. Tuma, Ph.D. 1973 Ne., William Vaughan, M.D. 1972 Ct., Robert Wigton, M.D. 1969 Ne., Rowen K. Zetterman, M.D. 1969 UNMC; **ASSISTANT PROFESSORS** Sambu Bhattacharyya, Ph.D., 1969 Calcutta (India), William C. Bell, Ph.D. 1975 Pitts., Suzanne W. Braddock, M.D. 1977 Ne., James Campbell, M.D. 1976 Ne., Carol Casey, Ph.D. Rice, Edwin Denis-Flows, M.D. 1977 Panama, Terrence M. Donohue, Ph.D. 1978 Ne., John T. Ferrell, M.D. 1976 Georgetown, Betty Foster, Ph.D. 1980 Kansas City, William F. Gust, M.D. 1967 Ne., Lon W. Keim, M.D. 1970 Va., Nancy Loeb, M.D. 1979 Ia., Merle T. McAlevy, M.D. 1971 Ne., David Meyers, M.D. 1976 Ia., Gerald F. Moore, M.D. 1971 Ne., V. K. Murthy, Ph.D. 1964 Bombay, James R. O'Dell, M.D. Ne., David L. Olson, M.D. 1972 Ne., Richard Osterholm, M.D. 1973 Ne., Jay Peters, M.D. 1976 Baylor, Jane F. Potter, M.D. 1977 Creighton, Jerry A. Reed, M.D. 1963 Ne., Richard Robbins, M.D. 1976 Ne., George Rozanski, Ph.D. 1981 Loyola, Daniel F. Schafer, M.D. 1976 Ne., Thomas Sears, M.D. 1975 Mo., Charles Seelig, M.D. 1975 Rochester, Phillip W. Smith, M.D. 1972 Chicago, Stephen Smith, M.D. 1974 Ks., Marlin G. Stahl, M.D. 1979 UNMC, Margaret A. Tempero, M.D. 1980 Ne., Austin B. Thompson, III, M.D. 1979 Massachusetts, Thomas C. Tinstman, M.D. 1970 Ne., Gary Volentine, M.D. 1978 Iowa, John R. Windle, M.D. 1979 UNMC, Laurence A. Zacharia, M.D. 1963 Harvard, Terrence M. Donohue, Ph.D. 1978 Ne.; **INSTRUCTORS** Mohammad Ghafouri, Ph.D. 1980 Ohio State, Mark Horrum, Ph.D. 1980 UNL, Mary T. Powers, J.D. 1981 Creighton, Susan Scholar, M.D. 1982 UNMC; **VOLUNTEER FACULTY** Michael J. Adams, M.D. 1975 Ne., William D. Angle, M.D. 1948 Harvard, David L. Bacon, M.D. 1962 Ne., Anthony J. Barak, Ph.D. 1953 Mo., Steven T. Bailey, M.D. 1976 Ne., Rodney Basler, M.D. 1971 Ne., John J. Cannella, M.D. 1972 Ne., Christopher C. Caudill, M.D. 1967 Ohio State, Ward A. Chambers, M.D. 1973 Ne., Richard E. Collins, M.D. 1968 Ne., David R. Colan, M.D. 1959 Creighton, James Commers, M.D. 1976 UNMC, John J. Connolly, M.D. 1959 Creighton, Christopher P. Crotty, M.D. 1975 Ne., Richard Crotty, M.D. 1947 Creighton, Donald J. Darst, M.D. 1977 Ne., Stanley L. Davis, M.D. 1963 Ne., Timothy B. Denzler, M.D. 1971 Ne., John L. Dewey, M.D. 1949 Creighton, Roger W. Dilley, M.D. 1964 Ne., Monroe Dowling, M.D. 1960 Harvard, Ronald A. Draur, M.D. 1965 Loyola, David R. Dyke, M.D. 1966 Ne., Suzanne E. Eilts, M.D. 1980 Ia., Jerry Fischer, M.D. 1977 UNMC, Alan D. Forke, M.D. 1964 Ks., Joseph R. Gard, M.D. 1970 Ia., Vernon F. Garwood, M.D. 1965 UNMC, Eelco D. Gerlings, M.D. 1963, Ph.D. 1966 Holland, William E. Graham, M.D. 1945 Ne., Robert Haag, M.D. 1959 UNMC, Charles A. Hamilton, M.D. 1953 Harvard, Ph.D. 1958 Ne., Donald L. Hammes, M.D. 1958 Ne., Herbert A. Hartman, Jr., M.D. 1973 Ks., Donald A. Harvey, M.D. 1957 Ne., Ph.D. 1953 Ohio, Bruce W. Henricks, M.D. 1975 Ne., John Hoelsing, M.D. 1967 Ne., Philip J. Hofschire, M.D. 1966 UNMC, Robert C. Holcombe, M.D. 1954 Md., T. J. Holmes, M.D. 1982 UNMC, Richard A. Hranac, M.D. 1973 Ne., Gordon J. Hrnicek, M.D. 1972 Ne., Theodore F. Hubbard, M.D. 1946 Ne., Mark Hutchins, M.D. 1976 UNMC, Michael B. Jones, M.D. 1975 Ne., Robert E. Joranson, M.D. 1944 Chicago, James E. Kelsey, M.D. 1949 Mn., James L. Knott, M.D. 1953 Creighton, Bernard Korbitz, M.D. 1960 Wi., Edward Langdon, M.D. 1946 Ne., Robert Langdon, M.D. 1979 UNMC, Leonard R. Lee, M.D. 1947 Chicago, Henry Lehnhoff, M.D. 1937 Northwestern, Jack L. Lewis, M.D. 1960 Ne., Thomas P.K. Lim, M.D. 1948 Sev. Union, Ph.D. 1953 Northwestern, Robert S. Long, M.D. 1940 Ne., Ann E. Lott, M.D. 1971 UNMC, John Luckasen, M.D. 1970 UNMC, James A. Mailliard, M.D. 1952 Creighton, Stephen Marion, M.D. 1975 UNMC, Jack Mathews, M.D. 1958 Northwestern, William McInnes, Ph.D. 1982 Chicago, Bruce McManus, M.D. 1977 U. of Saskatchewan (Canada), Bruce McMullen, M.D. 1970 UNMC, Robert Michaud, D.O. 1977 Kirksville College, Richard R. Miles, M.D. 1969 Harvard, Vincent F. Miscia, M.D. 1964 NJ, William B. Mitchell, M.D. 1964 Un. Washington, Paul K. Mooring, M.D. 1957 Columbia, Daniel Moravec, M.D. 1976 UNMC, James R. Morgan, M.D. 1969 Ne., Haskell Morris, M.D. 1943 Ne., Robert B. Muffly, M.D. 1952 Ne., Barry Munyon, M.D. 1982 UNMC, Gunter M. Nashelsky, M.D. 1953 Co., Karl F. Niehaus, M.D. 1953 Ne., Dan E. Nye, M.D. 1940 Ne., Leo E. O'Brien, M.D. 1965 Ne., Stephen C. Papenfuss, M.D. 1975 UNMC, Russell W. Palmer, Ph.D. 1966 Ia., Jeffrey A. Passer, M.D. 1972 Ne., Edward E. Pease, M.D. 1971 Ia., Maurice L. Pepper, M.D. 1936 Ne., David D. Policky, M.D. 1970 Ne., Merton A. Quaife, M.D. 1957 Ne., James Regan, M.D. 1965 Creighton, Reed W. Rings, D.V.M. 1957 Mo., Charles M. root, M.D. 1944 Ne., Robert Rosenlof, M.D. 1951 Ne., John Sage, M.D. 1956 Ne., Arnold E. Schaefer, Ph.D. 1947 Wi., Edward Schafer, M.D. 1974 Creighton, Steven A. Schwid, M.D. 1960 Ne., Monte W. Scott, M.D. 1957 Ne., Robert H. Settles, M.D. 1962 Ne., William A. Shiffermillier, M.D. 1975 Ne., Robert D. Sidner, M.D. 1964 Ne., Timothy J. Stivrins, M.D. 1980 UNMC, Richard Yates, M.D. 1980 UNMC, David Silverberg, M.D. 1976 Ks., Lee G. Simmons, D.V.M. 1963 Ok. State, Robert A. Slabaugh, M.D. 1951 Ne., Arthur L. Smith, M.D. 1940 Rush, Jack L. Smith, Ph.D. 1962 Cincinnati, Richard Sposato, M.D. 1968 St. Louis Medical College, Louis H. Stekoll, M.D. 1976 Chicago, Jack M. Stempier, M.D. 1944 Ne., Joseph E. Stitche, M.D. 1955 Md., Rudolf Strnot, M.D. 1965 U. of Iowa, Bowen E. Taylor, M.D. 1943 Ne., Joan Till, M.D. 1964 U. of Iowa, Wesley G. Tomhave, M.D. 1949 Mn., Jon A. Vanderhoof, M.D. 1972 Ne., Joseph Verdirame, M.D. 1975 Univ. of NY, Kenneth A. Voge, M.D. 1969 Ne., William M. Vosik, M.D. 1967 Ne., John Wagoner, M.D. 1978 Ne., Timothy O.

Wahl, M.D. 1974 Ne., Donald E. Waltemath, M.D. 1963 Ne., Vernon G. Ward, M.D. 1954 Ne., Samuel Watson, M.D. 1966 Ne., Arthur L. Weaver, M.D. 1962 Northwestern, Walt F. Weaver, M.D. 1956 West. Res., Steven J. Wees, M.D. 1976 Wayne State, John B. Westmore, M.D. 1959 Ne., Michael D. Wilkins, M.D. 1975 UNMC, Charles S. Wilson, M.D. 1964 Northwestern, Otto A. Wurl, M.D. 1939 Northwestern; **SENIOR CONSULTANTS** John G. Brazer, M.D. 1935 Mi., Arthur M. Greene, M.D. 1933 Ne., Charles R. Hankins, M.D. 1939 Ne., Wayne M. Hull, M.D. 1932 Ok., Raymond G. Lewis, M.D. 1930 Ne., Willis D. Wright, M.D. 1931 Ne.

#### **INTERNAL MEDICINE — 20**

It is the aim of instruction in internal medicine to establish a broad and thorough understanding of patients with disease and to develop a scholarly approach to the study of medical problems. Intensive study by each student of relatively fewer patients is emphasized rather than superficial observation of many patients. The student studies health as well as disease and early phases as well as late stages of disease. Small group conferences (four to six students) are utilized, with each member of the group participating. Time is allowed in each weekly program for reading, research, and other independent pursuits for the purpose of establishing habits for self-development that will persist for life.

#### **705 Basic Medicine Required Clerkship, Staff — UNMC, OVAMC, Lincoln**

Periods offered: Each 8 weeks

Student limit: 27

Semester hours: 8

The student is an integral member of the health care team responsible for the care of inpatients on the Internal Medicine service at one of the three hospitals (University Medical Center, Omaha Veterans Administration Medical Center, or St. Elizabeth's Hospital in Lincoln). As a team member, the student will obtain the initial history and perform thorough physical examinations, assess the patient's problems, and plan diagnostic and therapeutic programs. Students will be expected to assume responsibility for the daily care of their patients commensurate with their level of training. Skills in patient interaction, decision making, and performance of routine procedures will be emphasized. The fundamentals of internal medicine will be reviewed in formal sessions and through daily patient contact. Several of the weekly internal medicine conferences are designed for student participation.

#### **712 On-Campus Dermatology Clerkship, Staff — UNMC, OVAMC**

Periods offered: Each 4 weeks

Student limit: 3

Semester hours: 4

Each student will be supervised by the staff in dermatologic interview, physical diagnosis, topical therapy, and cutaneous therapeutic procedures (skin biopsy, cautery, cryotherapy, etc.).

#### **714 Omaha Dermatology Clerkship**

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

This is a full-time elective with one of several volunteer dermatologic faculty in their private offices. Approval based on availability of periods and student interview.

#### **715 Inpatient General Internal Medicine Clerkship, Drs. Loomis, Osterholm, Ellits — BCMH, Dr. Darst — BCMH, Drs. Holmes and Munyon**

Periods offered: Each 4 or 8 weeks

Student limit: 2

Semester hours: 4

Prerequisite: 20-705

An inpatient general internal medicine experience. Students electing eight weeks will have preference.

#### **716 Inpatient General Medicine Clerkship, Drs. Lewis, Lewis, and Watson — Methodist**

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

Prerequisite: 20-705

#### **717 Inpatient MICU Clerkship, Dr. Ecklund and Staff — OVAMC**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: 20-705

This clerkship offers opportunity for participation in the management of acutely ill

patients, working closely with the intensive care unit House Officer, supervisory resident, and attending physician. The experience is enhanced because of frequent consultation with specialty services. The student is also encouraged to participate in the regularly scheduled activities of the medical service.

**718 Inpatient Consultation Clerkship, Staff — OVAMC**

Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4  
Prerequisite: 20-705

On this service, the student has the opportunity to see and perform initial consultations on patients on non-medical services for whom internal medicine or certain subspecialty consultations are requested. The activity is closely supervised by the chief medical resident and attending physician appropriate to the problems identified. Students are encouraged to participate in the regularly scheduled activities of the medical service at OVAMC as well. Because of the diverse nature of the problems, the student has the opportunity for unofficially attaching himself/herself to subspecialty services and participating in teaching activities of those services.

**719 Inpatient Diabetes and Endocrinology, Dr. Stone — BCMH**

Periods offered: Each 4 weeks  
Student limit: 4  
Semester hours: 4  
Prerequisite: 20-705

This elective is designed to offer a careful study of a wide variety of endocrine diseases. Active participation in the primary care service and in the consultation service at Clarkson Hospital is the primary function. The activities include daily rounds at Clarkson Hospital with teaching both on rounds and at formal and informal sessions. The emphasis is on the following conditions: diabetes mellitus and all its complications, hypoglycemic states, thyroid disease, parathyroid disease, and diseases of the adrenal cortex. The main emphasis is upon the recognition and treatment of these conditions. There is an ample supply of patient material from which the student can learn.

**720 Adult Cardiology, Staff — OVAMC**

Periods offered: Each 4 weeks  
Student limit: 2  
Semester hours: 4  
Prerequisite: 20-705

This clinical cardiology rotation emphasizes inpatient bedside evaluation through consultations. Reading electrocardiograms is an important part of the clerkship, in addition to observing treadmill exercise testing, echocardiography, vectocardiography, phonocardiography, pulse displacement and cardiac catheterizations. Weekly conferences and teaching rounds are available. Staffing consists of cardiologists from both the University of Nebraska Medical Center and Creighton Medical School. Students may attend scheduled cardiology lectures offered at either school by attending the conference with a representative from the other school.

**721 Adult Cardiology, Staff — UNMC, Dr. Forker — Lincoln, Dr. Collins — Immanuel, Drs. Drauer and Morgan — Methodist**

Periods offered: Each 4 weeks  
Student limit: 4 — UNMC  
1 — Lincoln  
2 — Immanuel  
1 — Methodist  
Semester hours: 4  
Prerequisite: 20-705

This is a clinical rotation emphasizing bedside examinations of the patient. This involves evaluation of inpatients and outpatients in the cardiology clinics. One week of the rotation is spent at the Heart Station, reading electrocardiograms and observing treadmill exercise testing. Weekly conferences and teaching rounds are available.

**722 General Medicine, Dr. Meyer — UNMC**

Periods offered: Each 4 weeks (Sept.-Mar.)  
Student limit: 3 minimum/16 maximum  
Semester hours: 4  
Prerequisite: 20-705

In the period of one month, this elective will review basic concepts in internal medicine, uncommon diseases, and problem solving.

- 723 Diabetes, Endocrinology and Metabolism**, Drs. Shipp, Gallagher, Ecklund, and Tobin — UNMC/VA  
 Periods offered: Each 4 weeks  
 Student limit: 3  
 Semester hours: 4  
 Prerequisite: 20-705  
 Each student will have direct management responsibility for care of inpatients on the Diabetes, Endocrinology and Metabolism Service under the supervision of house officers and staff. Particular emphasis is placed on the diagnosis and treatment of those endocrine disorders encountered with the greatest frequency in the practice of medicine, specifically, diabetes mellitus and thyroid diseases. There will be adequate opportunity to acquire a working understanding of the complex diagnostic approaches for the less common endocrine disorders (adrenal, pituitary, and others). Students who elect an eight-week rotation will have increasing responsibility for primary patient care and the opportunity to pursue special projects of a clinical or investigative nature.
- 724 Gastroenterology**, Drs. Zetterman and Staff — UNMC, Dr. D. Schafer and Staff — OVAMC, and Dr. E. Schafer — BCMH  
 Periods offered: Each 4 weeks  
 Student limit: 3  
 Semester hours: 4  
 Prerequisite: 20-705  
 This elective in digestive diseases and nutrition emphasizes the application and correlation of the basic science principles of physiology, pharmacology, biochemistry, and pathologic anatomy in clinical gastroenterology. There will be one position available at each hospital.
- 725 Hematology**, Dr. Feagler and Staff — BCMH  
 Periods offered: Each 4 weeks  
 Student limit: 2  
 Semester hours: 4  
 A broad experience is offered in clinical hematology with emphasis on new concepts in the management of hematologic problems. Patient care serves as a basic for teaching the principles of diagnosis and management of the anemias, leukemia, hemorrhagic disorders, and disorders of immunology. Patients are seen at the Clarkson Hospital. Consultations are answered from general internal medicine and other specialties, and patients are seen in the relevant outpatient clinics. Teaching in a more structured manner is done in weekly blood morphology demonstrations in collaboration with the Department of Pathology in the Blood Club, in which various subjects are discussed. Students who elect hematology have ample opportunity for reading, and research opportunities can be provided for the student by special arrangements.
- 726 Infectious Disease**, Drs. J. C. Davis and Philip W. Smith — BCMH/UNMC, Dr. Robert Penn — Methodist  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 A) *Adult Infectious Diseases*: The cornerstone of the Adult Infectious Disease rotation will be clinical responsibility on the infectious disease service at UNMC under the supervision of Dr. Philip Smith. During the basic rotation, a rational approach to the diagnosis and therapy of infectious disease will be learned. Other facets of the rotation will include hospital epidemiology, clinical microbiology, infectious disease rounds at UNMC and BCMH, and infectious disease conferences. Opportunities will be available for special projects in clinical infectious diseases or microbiology.  
 B) *Pediatric Infectious Disease*: The pediatric infectious disease rotation will involve clinical rounds with Dr. Penn at Childrens Hospital, as well as training in hospital epidemiology and clinical microbiology.
- 727 Renal**, Drs. Knight and Ware — BCMH and Dr. Egan — OVAMC  
 Periods offered: Each 4 weeks  
 Student limit: BCMH — 1; OVAMC — 1  
 Semester hours: 4  
 Experience with patients having acute and chronic renal disease. Experience in hemodialysis and peritoneal dialysis; contact with kidney transplant patients.
- 730 Medical Oncology/Hematology**, Drs. Foley, Armitage, Davis, Goldsmith, Kessinger, Lemon, Tempero, and Vaughan — UNMC  
 Periods offered: Each 4 weeks  
 Student limit: 4  
 Semester hour: 4

This course is aimed to provide the medical student with a balanced experience in the diagnosis and treatment of patients with neoplastic diseases of all types and common problems encountered in hematology. Clinical training is provided in cancer prevention, cancer detection, hormone therapy, anti-hormone therapy and cancer chemotherapy of all types, and in management of paraendocrine syndromes. In addition, patient care will serve as a basis for teaching the principles of diagnosis and management of anemia, hemorrhagic disorders, and disorders of immunology. Experience includes supervised work-up of mostly well patients among the 7,000 annual clinical visits yearly, daily ward rounds on inpatients, with review of all pertinent laboratory, radiology, ultrasound, and nuclear medicine data. A combined tumor conference with surgery specialties, radiation oncology and radiology is held each Monday, a radiation oncology review conference occurs each Friday, and two seminars and case management conferences with oncology nursing and social service are held weekly. There is also a weekly blood morphology demonstration in collaboration with the Department of Pathology in the Blood Club. Consultations are answered from General Internal Medicine and other subspecialties. In addition, there are combined Oncology/Hematology Grand Rounds in which all cases are reviewed by the entire staff. Laboratory and clinical investigative experience for two months or more, if desired, is available in cell biology, mechanism of hormone action, anti-carcinogenesis, experimental chemotherapy, cancer epidemiology and various hematological problems.

**731 Inpatient Medicine, Dr. Ward — BCMH**

Periods offered: Each 4 weeks

Student limit: 4

Semester hours: 4

Training in the principles of neurophysiology in relation to the psycho-physiologic reactions with emphasis on the management of patients with psychophysiologic illnesses. Students and house officers are offered bedside training in the diagnosis and management of many of the chronic and acute diseases which must be managed by practicing internists as well as by those in the academic practice of internal medicine. Experience is also gained by instruction in doing the common procedures.

**732 Introduction to Pulmonary Diseases, Staff — UNMC/BCMh**

Periods offered: Each 4 weeks

Student limit: 4

Semester hours: 4

The pulmonary division offers an elective designed to provide the student with a practical background in chest medicine. The student will be assigned to either University Chest Service or the Clarkson Chest Service for training in patient management. All students electing the course will attend the didactic lectures in chest diseases, presented three times each week at the University Hospital during the rotation. Those students assigned to the University Chest Service will also have the opportunity of participating in outpatient management of chest diseases twice weekly. In addition to the didactic lectures, the student will also attend two clinical chest conferences and a seminar in interpretation of chest radiographic patterns each week. The course includes practical experience in the performance and interpretation of basic pulmonary function tests.

**733 Adult Cardiology, Drs. Miles, Chambers and Miscia — BCMH**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Clinical cardiac experience including cardiac catheterization, electrocardiology, post-operative care, and inpatient evaluation.

**734 Advanced Internal Medicine Seminar Course, Dr. Sorrell and Staff**

Especially to be considered with basic science part-time electives.

**735 Honors Program in Internal Medicine, Dr. Sorrell and Staff**

Student limit: 4

By arrangement only

**737 Diabetes Mellitus, Dr. Shipp and Staff**

Student limit: 3

Semester hours: 1

**738 Advanced Endocrinology, Dr. Shipp and Staff**

Student limit: 3

Semester hours: 1

- 739 **Metabolism and Nutrition**, Dr. Shipp and Staff  
 Student limit: 3  
 Semester hours: 1
- 741 **Advanced Internal Liver Diseases**, Dr. Sorrell and Staff  
 Student limit: 3  
 Semester hours: 1  
 Advanced studies of the cardiovascular renal system.
- 742 **Cardiologic Diagnosis and Electrocardiography**, Staff  
 Student limit: 2  
 Semester hours: 3
- 743 **Management of Heart Disease**, Staff  
 Student limit: 9  
 Semester hours: 2
- 744 **Hypertension and Nephritis**, Staff  
 Student limit: 9  
 Semester hours: 2
- 745 **Peripheral Vascular Disease**, Staff  
 Student limit: 3  
 Semester hours: 1
- 748 **Advanced Hematology**, Dr. R. B. Davis and Staff  
 Student limit: 6  
 Semester hours: 1-2  
 Crosslisting: Path 56-865, Anatomy 04-908
- 750 **Cardiovascular Seminar**, Staff  
 Semester hours: 1
- 752 **Medical Seminar**, Dr. Sorrell and Staff  
 Semester hours: 1
- 760 **Off-Campus Medicine Elective**  
 Periods offered: Each 4 weeks  
 Student limit: By arrangement (approval from Dr. David Olson)  
 Semester hours: 4  
 Clerkships in universities or teaching hospitals elsewhere sponsored by a member of the Department of Internal Medicine and in which the instructor directing the elective is not a member of our faculty. Appropriate off-campus electives are those providing opportunities in areas in which we have no comparable programs or in which the University cannot accommodate the number of students desiring the course. Contact Dr. David Olson for approval of arrangements.
- 762 **Internal Medicine Preceptorship**  
 Periods offered: Each 4 weeks  
 Student limit: By arrangement (approval from Dr. Olson)  
 Semester hours: 4  
 A preceptorship with a general internist where the student is exposed to outpatient care. A list of Omaha preceptors is available in the Internal Medicine office. An externship is also available at Iowa Methodist Hospital, Des Moines. See Dr. David Olson for details.
- 764 **Off-Campus Dermatology Elective, United States and/or Europe**  
 Periods offered: 4 or 8 weeks  
 Semester hours: 4-8  
 A student may taken an elective at another university dermatology training center within the United States, or at an approved foreign facility. Options must be endorsed on an individual basis by the Section Head. Time required for processing is minimum of two months.
- 772 **Internal Medicine Core Residency**, Staff
- 774 **Internal Medicine Fellowship**, Staff
- 776 **Chief and Associate Chief Residents in Internal Medicine**  
 These are full-time positions with intense clinical responsibility being assumed under direct faculty supervision.
- 799 **Research in Medicine**, Dr. Sorrell and Staff  
 Periods offered: Each 4 or 8 weeks  
 Student limit: By arrangement  
 Semester hours: 4  
 Should consider applying for research fellowship several months in advance.

## MEDICAL SERVICES

Hospital, University of Nebraska; Chief, Michael F. Sorrell  
Hospital, Veterans Administration; Chief, Robert Ecklund  
Hospital, Bishop Clarkson Memorial; Chief, George Loomis  
Hospital, Immanuel Medical Center; Chief, Jack Lewis  
Hospital, Nebraska Methodist; Chief, John Sage  
Hospital, Bryan Memorial; Chief, Jack Stemper  
Hospital, Lincoln General; Chief, D. F. Purvis  
Hospital, University Medicine Clinics; Chief, Michael F. Sorrell  
Research; Chief, Michael F. Sorrell  
Section of Cardiology; Head, Toby R. Engel  
Section of Dermatology; Head, Ramon M. Fusaro  
Section of Diabetes, Endocrinology and Metabolism; Head, Joseph C. Shipp  
Section of Digestive Diseases and Nutrition; Head, Rowen K. Zetterman  
Section of General Medicine; Head, Lee Roy Meyer  
Section of Geriatrics and Gerontology; Head, Jane F. Potter  
Section of Infectious Disease; Head, J. C. Davis III  
Section of Oncology/Hematology; Head, John Foley  
Section of Pulmonary Medicine; Head, Stephen I. Rennard  
Section of Renology; Acting Head, Frederick Ware  
Section of Rheumatology and Immunology; Head, Lynell W. Klassen

## ELECTIVE COURSES OFFERED THROUGH THE SECTION OF GERIATRICS AND GERONTOLOGY

- 20-332 Law and Aging** (3 s h cr) Dr. Foster and Staff  
This course addresses issues related to protective guardianship, Medicare and Medicaid, income maintenance, nursing home law, right to die, and consumer fraud law.
- 20-360 Gerontology for the Health Care Professional** (3 s h cr) Dr. Foster  
The health profession student is introduced to the area of study called gerontology. Emphasis is given to the implications of age-related changes on the delivery of health care. The older person, the health care provider, and the health care environment are considered.
- 19-709 The Geriatric Clerkship I** focuses on health care for elderly persons. The student will have experience in a full range of care settings from home care to an acute care general hospital. The total needs of the patient will be addressed and will include mental health, financing health care, and pharmacology. Didactic sessions are interspersed with experiential learning and practice.
- The elective Residency in Geriatric Medicine has two main goals. The resident is introduced to the database of geriatric medicine. The resident also has numerous opportunities to experience all levels of care included in the home, in the acute care hospital, in the rehabilitation hospital and in long-term care facilities.

## MEDICAL JURISPRUDENCE AND HUMANITIES

**PROFESSORS** Ruth B. Purtilo, Ph.D. 1979 Harvard (Chairman), JoAnn Carrigan, Ph.D. 1961 La. State, Alfred G. Ellick, J.D. 1941 Mi., Walter J. Friedlander, M.D. 1945 Ca., Russell W. Palmer, Ph.D. 1966 Ia., Dale Stover, Ph.D. 1967 McGill Univ. (Montreal), Richard S. Thill, Ph.D. 1973 UCLA; **ASSOCIATE PROFESSORS** Father James E. Hoff, Ph.D. 1969 Gregorian Univ. (Rome), Richard A. Overfield, Ph.D. 1968 Md.; **ASSISTANT PROFESSORS** Andrew Jameton, Ph.D. 1972 Wa., Michael D. Jones, J.D. 1969 Creighton, Craig M. Lawson, J.D. 1974 Ca., William H. Reid, M.D. 1970 Mn.; **INSTRUCTOR** Joseph K. Meusey, J.D. 1965 Ia.

## MEDICAL JURISPRUDENCE AND HUMANITIES

- 502 Medical Jurisprudence** (1 s h cr)  
This course presents fundamental concepts and topics in medical jurisprudence: Medical legislation, medical evidence and witnesses, privileged communications, general medico-legal relations, physicians' contracts and compensation, malpractice, legal problems relating to conception and childbirth, and liability of hospitals and nurses.
- 550 Clinical Medical Humanities** (2 s h cr)  
This course outlines the intellectual foundations of the humanities aspects of medical practice. It emphasizes ethics, history, economics and social science approaches to the basic goals and controversies of practice. It defines the function of the physician, the role of the medical profession, the patient as an entity, and examines the interfaces among them.

- 612 Professional Standards: A Comparison of Ethical and Legal Aspects of the Physician-Patient and Lawyer-Client Relationships** (3 s h cr)  
 This course examines legal and ethical aspects of the physician-patient and lawyer-client relationships, showing their common themes and highlighting significant differences. The sessions emphasize ways in which physicians and lawyers can collaborate to help assure high quality health care and legal services. Readings, discussion and case studies are employed to illustrate the above.  
 Designed for students in law and medicine. Offered in the fall term. Class meets once a week in the evening with half the sessions conducted in Omaha, half in Lincoln (transportation provided). Enrollment limited to 12 students from each college (UNMC and College of Law).
- 622 Medical History** (2 s h cr)  
 This is a series of lectures which offer an introduction into the history of medicine and allied fields. It stresses the development of ideas, the relation of medicine to society, and the interrelations between the various medically allied fields rather than only biographic material.
- 626 Ethical Decision-Making in the Clinical Setting** (2 s h cr)  
 This course introduces the student to basic ethical theory and concepts that are relevant to the health care setting. A problem-solving approach to the resolution of moral conflict is introduced. Through case analysis and discussion students are encouraged to (1) explore their own value systems; (2) become proficient in analyzing ethical issues; and (3) explore alternative, morally justifiable courses of action.
- 770 Advanced Seminar in Medical Humanities** (1-4 s h cr)  
 This course allows individual students to pursue their special interests in selected areas of medical humanities with members of the department.
- 802 Ethics in Health Care** (3 s h cr)  
 Presentation of philosophical ethical theory, ethical decision procedures, and research methods in ethics. This material will be analyzed and applied to topics in ethics in health care. Issues in clinical practice and administration will be emphasized. Topics vary and include such issues as care of the dying, geriatrics, disclosure, informed consent, supervision and management, cost-containment, quality assurance, human experimentation, and others. Prerequisite: Graduate standing.

## MEDICAL SOCIAL WORK

### MEDICAL SOCIAL WORK — 34

- 720 Patient/Family Reactions to Illness** (Elective), Hansen, Staff  
 Periods offered: Each 4 weeks  
 Student limit: 2  
 Semester hours: 4

Students will observe as social workers counsel hospital and clinic patients concerning their difficulties in coping with illness and problems that arise in preparation for discharge. Students will participate in patient and family interviews. They will gain knowledge of community resources and agencies, and will explore with the social worker the legal, ethical and economical issues of patient care.

## NEUROLOGY

**PROFESSORS** Donald R. Bennett (Chairman), M.D. 1955 Georgetown, Robert N. Baker, M.D. 1949 So. Ca., Robert J. Ellingson, Ph.D. 1950 Northwestern, M.D. 1963 Ne., Walter J. Friedlander, M.D. 1945 Ca.; **ASSOCIATE PROFESSORS** John C. Goldner, M.D. 1963 Ne., Agapito S. Lorenzo, M.D. 1957 Philippines, Jason Ohr, M.D. 1962 Seoul, Erich W. Streib, M.D. 1967 Tuebingen (W. Germany); **ASSISTANT PROFESSORS** John F. Aita, M.D. 1968 Ne., Lewiston Birkmann, M.D. 1971 Ne., Ronald A. Cooper, M.D. 1971 Ia., Joel T. Cotton, M.D. 1974 Ne., Clifford M. Danneel, M.D. 1960 Ia., Douglass A. Decker, M.D. 1965 Penn., Jerrard J. Hertzler, M.D. 1962 Ks., Fred J. Kader, M.D. 1964 McGill, Ronald E. Pfeiffer, M.D. 1973 Ne., Edward M. Schima, M.D. 1964 Northwestern, David L. Smith, M.D. 1971 La., Sallie F. Sun, M.D. 1971 Rochester, Leonard E. Weber, M.D. 1971 Creighton, George J. Wolcott, M.D. 1962 George Wa.; **INSTRUCTORS** Winston J. Borkowski, Jr., M.D. 1975 Jefferson, Kathleen E. Wilken, M.D. 1978 OR.

## NEUROLOGY — 36

### Introduction to Neuroscience (Incorporated in 19-650/652)

Provides for the teaching of the essential fundamentals necessary for the clinical approach and evaluation of patients with neurological diseases. The format combines lectures, patient demonstrations, case presentations.

### 732 Clinical Neuroscience Clerkship, Dr. Bennett

Periods offered: Each 4 weeks

Student limit: 6 (4 at UNH, 2 at VA Hospital)

Semester hours: 4

Prerequisite: Internal Medicine Required Clerkship

This elective offers students a combined neurology (3 weeks) and neurosurgery (1 week) experience where evaluation, diagnosis, and managerial approaches are experienced under close faculty supervision. Focus is also flexible enough to serve the student's interest in electroencephalography, electromyography, and/or neuropathology.

### 734 Clinical Pediatric Neurology, Dr. Torkelson

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

Prerequisite: Pediatric Clerkship

This course offers students clinical pediatric neurology experience under close supervision of the faculty with specific focus on the evaluation, diagnosis, and treatment of the neurological diseases in children from conception to the adult state.

### 760 Off-Campus Neuroscience Elective

Periods offered: Each 4 weeks

Student limit: By arrangement through the Neurology office

Semester hours: 4

Arrangements must be made by the student and approved through the Department of Neurology at least two months in advance of elective date.

### 772 Junior Residency in Adult Neurology

Prerequisite: 1 year Medicine, Family Practice or rotating internship in an approved program.

The first year of the residency program is spent in the inpatient and outpatient adult neurology services. Teaching emphasis is placed on the neurological history and examination, differential diagnosis, and familiarity with laboratory procedures and treatment and management regimens. The resident is exposed to patients with a diversity of neurological diseases, assumes responsibility for patient care and is closely supervised. First year rotations consist of four consecutive months at each of the participating hospitals: The University of Nebraska Hospital, Veterans Administration Hospital, and St. Joseph Hospital.

### 774 Intermediate Residency in Adult Neurology

1. *Pediatric Neurology* — (four months, University of Nebraska Hospital) The goals and objectives of this rotation are to familiarize the adult neurology resident with developmental neurology in relationship to the neurologic examination, neuropathology, neurophysiology, and clinical implications of the child from conception to the adult state. It is hoped that this will enhance the resident's education so that he or she is familiar with neurologic problems during the developmental period and to broaden the trainee's understanding of pathology that might exist in the adult patient as a result of neurologic problems during the developmental period.

2. *Neuropathology* — (four months, University of Nebraska Hospital) Neuropathology is a full-time assignment for a four-month period. One neuropathology conference is held each week, rotating among the three teaching hospitals. These consist of brain cutting, microscope review and teaching conferences. There is a monthly neurological, clinical-pathological conference. The resident assigned to neuropathology attends and participates in all these conferences and is responsible for writing the CPC. Microscopic neuropathology on all cases is examined by the resident and reviewed with the neuropathologist. Special study sets are used and reviewed with the resident. Gross and microscopic photographs, case abstracts and interpretations are available for study. The study program includes an introduction to neurohistology, enzyme histochemistry, electron microscopy and experimental neurology. The assignment in neuropathology includes a review of neuroanatomy and a review of relevant general pathology. Experience and training in muscle and brain biopsy is also included.

3. *EEG and Evoked Potentials* — (four months, University of Nebraska, St. Joseph, and Veterans Administration Hospitals) The resident spends a four-month rotation in EEG and evoked potentials. Both laboratory and didactic experience in electronics, equipment, techniques and interpretation is received. By the time the rotation is completed,

the resident is expected to be able to run a complete EEG on a patient including preparing the patient for the test. Reading sessions are conducted daily with the attending. The resident will have reviewed all records prior to this conference. A weekly 1½ hour conference review of interesting records from the three hospitals is also held. Books, references, articles, manuals, and teaching records are available for self-study.

**776 Senior Residency in Adult Neurology**

1. *EMG* — In the four-month exposure to neuromuscular techniques both didactic and practical experience are scheduled. The former includes the review of electrophysiology nerve impulse, review of clinical physiology of the neuromuscular transmission and the known clinical alterations at this point of nerve transmission, review of the physiology of excitation-contraction, coupling and various clinical conditions relating to muscle fiber problems. The resident will spend time with the electromyographer in a weekly clinic learning equipment and techniques for motor and sensory conduction studies, neuromuscular transmission assessments, EMG with needle electrodes, H-reflex and blink reflex studies. When he/she is familiar with these techniques, he/she will be allowed to perform these studies under the supervision of the electromyographer. The resident will also be expected to attend the muscle disease clinic.

**776 Senior Residency in Neurology with Special Competency in Child Neurology**

Prerequisites: Two years pediatrics (H.O. I and H.O. II) as well as 772 and 774 adult neurology.

The goals and objectives of the course are to complete the resident's education in pediatric neurology with encouragement into academic and research endeavors. To accomplish this, the student will spend one year on the pediatric neurology service during which time he or she will have full clinical responsibility for patients on the pediatric neurology service, both inpatient and ambulatory. The program will be under the direct supervision of the Director of Child Neurology and Chairman of Neurology.

**790 Clinical Research Elective**

Periods offered: All semesters

Student limit: By arrangement

Semester hours: Total hours are by individual arrangement.

This elective offers students an opportunity to work with faculty members in clinical investigations of neurological diseases and to participate in ongoing research projects. Definition of problems and program of learning to be decided upon discussion with faculty.

## NEUROSURGERY

**PROFESSOR** F. Miles Skultety (Chairman, M.D. 1946 Rochester, Ph.D. 1958 Ia.; **ASSOCIATE PROFESSOR** Lyal G. Leibrock, M.D. 1969 So. Ca.; **ASSISTANT PROFESSORS** Benjamin R. Gelber, M.D. 1973 NY, Louis J. Gogela, M.D. 1943 Ne., John L. Greene, M.D. 1958 Ne., Leslie C. Hellbusch, M.D. 1972 Chicago, John R. Mawk, M.D. 1974 San Antonio, Tx., Eric W. Pierson, M.D. 1973 NY; **SENIOR CONSULTANTS** Kenneth M. Browne, M.D. 1944 Ne., Alister I. Finlayson, M.D. 1937 Ne.

### NEUROSURGERY — 38

**732 Clinical Neuroscience Clerkship** (same as 36-372), Dr. Bennett

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

Prerequisite: Internal Medicine Required Clerkship

Elective offers student a combined neurology (3 weeks) and neurosurgical (1 week) clinical experience where evaluation, diagnosis and managerial approaches are experienced under close faculty supervision. Focus is also flexible enough to serve the student's interest in electroencephalography, electromyography, and/or neuropathology.

**734 Pain Management Center Clerkship**

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

This elective offers the student exposure to a multidisciplinary treatment facility for chronic pain which cannot be treated medically or surgically. Students will have an opportunity to learn about biofeedback, individual psychotherapy and group counseling, exercise, physical therapy, medication withdrawal, and neurological issues, as they apply to the chronic pain patient. Medical supervision will be provided by the Department of Neurosurgery.

**738 Neurosurgery Clerkships, Dr. Skultety**

Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4  
Prerequisite: Surgery clerkship required

Elective offers student experience with respect to diagnosis, treatment and management of patients with neurosurgical diseases under close supervision of the faculty.

**740 Preceptorial Neurosurgery Elective**

Periods offered: Each 4 weeks  
Student limit: 1 per service  
Semester hours: 4

Members of the clinical faculty of the Department of Neurosurgery offer preceptorial elective clerkships for students. Four clerkships are available, one each with Dr. John Greene, Omaha; Dr. Leslie Hellbusch, Omaha; Dr. Louis Gogela, Lincoln; and Drs. Eric Pierson and Benjamin Gelber, Lincoln. Prior arrangements must be made with the physician involved and approved by the Department of Neurosurgery. A student evaluation of the clerkship will be required upon completion of the clerkship.

**799 Clinical Research Elective**

Periods offered: All semesters  
Student limit: By arrangement  
Semester hours: Total hours by individual arrangement

This elective offers students an opportunity to work with faculty members in clinical investigations of neurosurgical diseases and to participate in ongoing research projects. Definitions of problems and programs of learning will be decided upon discussion with faculty.

## OBSTETRICS-GYNECOLOGY

**PROFESSORS** Joseph C. Scott, Jr. (Chairman), M.D. 1957 St. Louis, Larry L. Penney, M.D. 1967 Ne., Leon S. McGoogan, M.D. 1925 Pn.; **ASSOCIATE PROFESSOR** Ralph E. Woods, M.D. 1953 St. Louis; **ASSISTANT PROFESSORS** Kristen L. Engdahl Hoffman, M.D. 1977 Ne., Deborah A. Turner, M.D. 1978 Ia.; **CLINICAL ASSOCIATE PROFESSOR** William P. Heidrick, M.D. 1960 St. Louis; **SENIOR CONSULTANT** W. Riley Kovar, M.D. 1935 Creighton; **RESEARCH PROFESSOR** Wayne L. Ryan, Ph.D. 1953 Mo.; **RESEARCH ASSOCIATE PROFESSOR** Gary L. Curtis, Ph.D. 1971 Ne.; **INSTRUCTORS** V. Jean Burks, R.N. 1946 Ne., Joyce A. Gray, M.S.W. 1976 Ne., Margot B. Mason, B.S. 1948 Miami; **VOLUNTEER FACULTY** George M. Adam, M.D. 1972 Ne., Craig A. Bassett, M.D. 1974 Ne., Dennis D. Beavers, M.D. 1965 Ne., John M. Bennett, M.D. 1974 Creighton, William C. Boelter, M.D. 1945 Ne., Daniel G. Bohi, M.D. 1959 Ne., Ernest K. Businger, M.D. 1972 Ne., Robert T. Byington, M.D. 1971 Ne., Winston D. Crabb, M.D. 1967 Northwestern, Marvin L. Dietrich, M.D. 1966 Ne., Colleen W. Dilley, M.D. 1965 Ne., Thomas F. Dolnicek, M.D. 1978 Ne., James H. Elston, M.D. 1959 Creighton, Loren A. Faaborg, M.D. 1975 Ne., Charles A. Field, M.D. 1945 Ia., Terence K. Foote, M.D. 1977 Ne., Richard E. Garlinghouse, M.D. 1934 Pn., Russell L. Gorthey, M.D. 1951 Ne., Richard K. Green, M.D. 1964 Ne., Hodson A. Hansen, M.D. 1942 Ne., Harold E. Harvey, M.D. 1947 Ne., David G. Holdt, M.D. 1978 Ne., Jeffrey B. Itkin, M.D. 1979 Ne., Roger S. Jernstrom, M.D. 1957 Ut., L. Palmer Johnson, M.D. 1956 Ne., Lawrence R. Jones, M.D. 1977 Ne., Warren T. Kable, M.D. 1974 Tx., Gerald S. Keasling, M.D. 1975 Ne., Michelle S. Knolla, M.D. 1979 Ne., Terrence J. Kolbeck, M.D. 1968 Ne., C. J. LaBenz, M.D. 1975 Ne., Michael G. Levine, M.D. 1976 Guadalupe, Kirk C. Lewis, M.D. 1960 Ne., Robert J. Luby, M.D. 1952 Creighton, Bernard Magid, M.D. 1954 Ne., James J. Maly, M.D. 1976 Ne., Charles W. Marlow, M.D. 1971 Ne., Myrle F. Marsh, M.D. 1954 In., Ronald L. Marshall, M.D. 1967 Ne., Thomas E. Martin, M.D. 1976 Ne., John O. McCarthy, M.D. 1951 Ne., Kenneth T. McGinnis, M.D. 1941 Ne., Leland J. Olson, M.D. 1944 Ne., G. William Orr, M.D. 1962 Ne., John P. Reilly, M.D. 1966 Creighton, Larry E. Roffman, M.D. 1955 Ia., Joseph G. Rogers, M.D. 1961 II., William L. Rumbolz, M.D. 1944 Ne., Colin B. Schack, M.D. 1951 Ne., John H. Schulte, M.D. 1977 Ne., Raymond L. Schulte, M.D. 1971 Ne., Gene F. Stohs, M.D. 1975 Ne., Raymond A. Sundell, M.D. 1957 Ne., Bernie D. Taylor, M.D. 1957 Ne., F. Edward Waechter, M.D. 1975 Ne., Ronald L. Wax, M.D. 1965 Ne., Howard F. Yost, M.D. 1953 Ne.

### OBSTETRICS-GYNECOLOGY — 40

#### Reproductive Medicine (Included in 19-650-652) Staff

This course provides an introduction to obstetrics and gynecology. Course content includes diagnosis and care of the normal and abnormal obstetric patient, assessment of the intrauterine patient, and discussion of female pelvic disease. The information will be considered as core material and successful completion of the course is a prerequisite to the primary clinical clerkship.

- 620 Introduction to Obstetrics and Gynecology, Staff**  
Anatomy, physiology, and biochemistry of normal human reproduction and their relation to clinical obstetrics and gynecology.
- 640 Introduction to Family Planning and Contraceptive Techniques, Staff**  
Prerequisite: 88-514  
Basic familiarization with methods in family planning at UNH clinics and family planning clinics in Omaha under staff supervision. The student will also complete a programmed text in family planning which will be given to him at the beginning of the elective period.
- 642 Introduction to Clinical Gynecologic Endocrinology**  
Prerequisite: Biochemistry 510  
An introductory clinical course which is directed at correlating the biochemical basis to disease with endocrine aspects of Ob-Gyn practice. The student will be required to complete a programmed text which will be provided to him in gynecologic endocrinology and will attend the endocrine clinic and conferences at UNH.
- 644 Advanced Topics in Obstetrics and Gynecology**  
Prerequisite: 80-514  
In-depth investigation into one of the basic clinical areas in obstetrics and gynecology with the goal of development of an audiovisual teaching package in that specific area.
- 646 Basic Principles of Fetal Monitoring**  
Prerequisite: 88-514  
An introduction into techniques of fetal monitoring, the clinical course of labor and management of the patients in labor utilizing external and internal methods of fetal monitoring.
- 705 Junior Clinical Clerkship, Staff**  
Periods offered: Each 8 weeks  
Student limit: 30  
Semester hours: 8  
Junior-year students are assigned to the University Hospital and affiliated hospitals for inpatient experience and to the University Hospital Clinics for outpatient obstetric and gynecologic clinics. They will follow the progress of patients in labor, assist at operative procedures, and maintain a complete record until the patient is discharged from the hospital. Outpatient experience will include participation in the following clinics: normal and complicated obstetric, gynecologic, and family planning. Seminars, conferences, and ward rounds are scheduled regularly.
- 710 Outpatient, Staff**  
Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4  
Obstetric, gynecologic, and specialty clinic experience including family planning. Daily seminars with the faculty to discuss special problem areas in obstetrics and gynecology.
- 720 Advanced Obstetrics, Staff**  
Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4
- 722 Advanced Gynecology, Staff**  
Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4
- 724 Obstetrics and Gynecology Tutorial, Individual physicians**  
Periods offered: Each 4 weeks  
Student limit: 1 per faculty member  
Semester hours: 4  
Individual students work in a one-to-one relationship with the staff at the University Hospital, or with a volunteer faculty member at an affiliated hospital. By approval only.
- 760 Off-Campus Elective**  
Periods offered: Each 4 or 8 weeks  
Student limit: By arrangement  
Semester hours: 4  
Clerkship in University or teaching hospitals elsewhere. By individual approval only.

- 772 Core Residency, Scott, Staff**  
 Prerequisite: Degree of M.D. from an accredited U.S. Medical School. Foreign medical graduates are required to have an E.C.F.M.G. Certificate.  
 This is a four-year program. The resident rotates between clinical obstetric services including inpatient and outpatient, and gynecologic services including inpatient and outpatient. These services are in the University Hospital or one of its integrated hospitals. An additional rotation is a period of time devoted to pathology, endocrinology, internal medicine, anesthesia, and neonatology. Attendance at the weekly resident seminars is mandatory.
- 774 Chief Residency**  
 The chief resident has a clinical experience of eight months on inpatient and outpatient gynecology and four months on inpatient and outpatient obstetrics. Following completion of the core residency and the chief residency, the Board requirements of the American Board of Obstetrics and Gynecology are fulfilled. All residents participate in staff conferences, journal club, radiology seminars, and grand rounds.
- 796 Research, Medical Education, Staff**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Problems of core curriculum, development of audiovisual aids and evaluation in undergraduate education.
- 797 Research, Family Planning, Staff**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Problems of family planning, including clinical experience in a variety of settings.
- 798 Research, Maternal and Infant Care, Staff**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Problems of pregnancy and the perinatal period in relation to maternal health care programs.
- 799 Research, Gynecologic Cancer, Staff**  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Problems of diagnosis and treatment of malignant disease of the female reproductive system.

## OPHTHALMOLOGY

**PROFESSORS** Raymond E. Records (Chairman), M.D. 1961 St. Louis, Frank L. Eagle, M.D. 1941 Ne., John C. Filkins, M.D. 1946 Ne., Stanley M. Truhlsen, M.D. 1944 Ne.; **ASSOCIATE PROFESSORS** Gerald R. Christensen, M.D. 1961 Or., Charlton R. Latta, M.D. 1957 Ne., Frederick A. Mausolf, M.D. 1968 Loyola, Richard H. Meissner, M.D. 1955 Ne., Roy F. Statton, M.D. 1950 Ia., **ASSISTANT PROFESSORS** Aziz Y. Anis, M.B.B.Ch 1961 Cairo (Egypt), Robert C. Chase, M.D. 1954 Ne., Mark E. Crawford, M.D. 1957 Ne., Howard A. Dinsdale, M.D. 1954 Ne., Daniel S. Durrie, M.D. 1975 Ne., Robert G. Faier, M.D. 1958 Ne., Gerald F. Geiger, M.D. 1961 Ne., John D. Griffiths, Jr., M.D. 1963 Ne., Loran B. Morgan, M.D. 1943 Mn., William F. Nye, M.D. 1958 Ne., John W. Pemberton, M.D. 1958 Ne., John T. Ramsell, M.D. 1964 Ia., Sebastian J. Troia, M.D. 1976 Creighton, Mylan R. Van Newkirk, M.D. 1968 Ne.; **INSTRUCTORS** Donald L. Arkfeld, M.D. 1973 Ne., J. Kemper Campbell, M.D. 1968 Ks., Raymond M. Crossman, M.D. 1974 Ne., Everett C. Madson, M.D. 1970 West. Res., Michael X. McIntosh, M.D. 1969 Creighton, Leiberg F. Meyer, M.D. 1970 Creighton, Ira A. Priluck, M.D. 1972 Ok., William R. Schlichtemeier, M.D. 1973 Ne., Steven E. Shefte, M.D. 1973 Ne., Gregory Sutton, M.D. 1977 Ne., Vincent J. Sutton, M.D. 1976 Ne., Carl J. Troia, M.D. 1953 Creighton, Larry W. Wood, M.D. 1966 Ne., Joseph R. Zahn, Ph.D. 1975 In.

## OPHTHALMOLOGY — 44

- 602 Principles of Clinical Ophthalmology** (included in 19-650/652)  
 The many disciplines which make up the broad field of clinical ophthalmology are presented in a concise and encapsulated manner. These include elementary geometric optics, physiologic optics, external disease, disease processes peculiar to the visual

system, and the ophthalmic manifestations of systemic disease. The goal of this course is to give the student a firm foundation of basic ophthalmic knowledge which will aid in differentiating normal variation from true disease processes. Such basic knowledge and diagnostic skills will complement and enhance the individual's diagnostic and therapeutic efforts in any area of clinical medicine.

**720 Clinical Ophthalmology, Records (UNH/OVAH)**

Periods offered: Each 4 weeks (8 weeks by arrangement with Chairman)

Student limit: 2

Semester hours: 4

The elective in Clinical Ophthalmology will include experience in all areas of general ophthalmological diagnosis and therapy. Within this wide field the following areas will receive particular emphasis: 1) Ophthalmic history taking and its correlation to the general medical history; 2) Functional evaluation of the visual system including determination of near and distance, visual acuity, the size and shape of the visual field, color vision, stereopsis, and other testing procedures designed to detect dysfunction of any components of the visual system; 3) Direct examination of the visual system including both applanation and indentation tonometry, the use of the slit-lamp, direct and indirect ophthalmoscopy; and 4) Observation and participation in ocular surgical procedures. The goal of this program is to lay a firm foundation of basic knowledge and diagnostic skill which will aid the non-ophthalmologist in evaluating disease processes of the eye adnexa and visual pathways. Such knowledge will make for more rational and complete patient care as well as understanding the problems of the patients who have ophthalmic disease or ophthalmic manifestations of systemic disease processes.

**760 Off-Campus Elective**

Periods offered: Each 4 weeks

Student limit: By arrangement with department Chairman

Semester hours: 4

Clerkships in teaching hospitals elsewhere. By individual approval only.

**772 Residency Program in Ophthalmology**

The residency training program in ophthalmology is 36 months in duration. It is fully accredited by the Liaison Committee on Graduate Medical Education and fulfills the formal training requirement for certification by the American Board of Ophthalmology. Two appointments are made effective July 1st of each year. Successful applicants are generally notified of their appointments some eighteen months prior to the start of formal training.

**Facilities:** Three hospitals in the Omaha area are utilized for resident training activities:

1. The University of Nebraska Medical Center Hospital functions as the primary teaching facility of this program.
2. The Omaha Veterans Administration Medical Center is an important source of both medical and surgical cases for further in-depth ophthalmic teaching.
3. St. Joseph's Hospital with 570 beds.

The University of Nebraska Medical Center's Ophthalmology Clinic furnishes outpatient care to a wide range of patients. No income restrictions are applied to patients seeking care and service. This brings a complete spectrum of clinical material ranging from totally indigent to full-pay private patients. The Omaha Veterans Administration Medical Center maintains an extremely active ophthalmology service which functions both as an outpatient screening facility and an inpatient surgical service. A large volume of cases are seen at this hospital yearly and an unusually high percentage of them undergo major ophthalmic surgical procedures.

The clinical facilities of both the University of Nebraska Medical Center Hospital and the Veterans Administration Medical Center are among the best equipped in the United States. The latest in diagnostic and refraction equipment is available and all surgical procedures are performed utilizing the operating microscope.

**THE TRAINING PROGRAM**

**First Year:** Each new resident is given a short orientation and then is assigned to work under the supervision of a second-year resident. As soon as the individual demonstrates a reasonable degree of competence in the management of simple ophthalmic problems, he/she is given his/her own completely equipped examination room and is assigned random patients from the general eye clinic population. The neophyte resident then undertakes diagnosis and management of these patients under the careful guidance of an attending faculty member. He/She is encouraged to move as rapidly as possible in developing the skills which are necessary to become a thorough and complete ophthalmic clinician. The best interest of the patient, however, is always the primary concern, and all steps of diagnosis and management are made under careful supervision. As the resident gains more experience and confidence,

more latitude is given until at the end of the freshman year, a high degree of competence has been obtained in management of everyday ocular complaints. This includes the evaluation of patients who will undergo routine ocular surgery as well as both simple and complicated problems in refraction and medical ophthalmology. Much emphasis is placed upon developing the important skill of ophthalmic history taking and performing a meticulous and detailed examination.

**Second Year:** An important and rewarding part of the training of each second-year resident is close supervision of the freshman residents as they become active in the operation of the clinic. The second year resident continues to improve his/her skills in diagnosis and management of routine major ophthalmic procedures. Such procedures include enucleations, strabismus surgery, and uncomplicated cataract extractions. During the second year of training, the resident is exposed to various disciplines closely aligned with ophthalmology such as neuro-ophthalmology, ophthalmic pathology, and pediatric ophthalmology.

**Third Year:** Six months of the senior year in the ophthalmology residency program is spent as Chief Resident at the University Hospital, and six months as Chief Resident at the Omaha Veterans Administration Hospital. At the University Hospital, the Chief Resident is directly responsible for the operation of the clinics and the well-being of the inpatients on the ophthalmology service. He/She is also active in supervising the first- and second-year residents and confirming their diagnoses. The senior resident performs most of the major ophthalmic surgical procedures at the University and Veterans Administration Hospitals. The Chief Resident is also responsible for answering all requests for consultations from other services at all major teaching hospitals. During the course of three years of residency, a total of 200 to 300 major surgical procedures will be performed.

## ORTHOPAEDIC SURGERY AND REHABILITATION

**PROFESSORS** John F. Connolly (Chairman), M.D. 1961 N.J., Samuel I. Fuenning, M.D. 1945 Ne., Russell C. Nelson, D.Sc. 1951 Colorado School of Mines, Edmund B. Weis, Jr., M.D. 1957 U. Col. at Boulder; **ASSOCIATE PROFESSORS** O. Max Jardon, M.D. 1957 Ne., Louis Lippiello, Ph.D. 1973 Cornell, Warren W. Stinson, Ph.D. 1970 Okla. Univ.; **ASSISTANT PROFESSORS** Dennis A. Chakkalakal, Ph.D. 1969 Wa. Univ. (St. Louis), Walter W. Huurman, M.D. 1962 Northwestern, W. Michael Walsh, M.D. 1971 Tulane; **INSTRUCTOR** Thomas P. Ferlic, M.D. 1975 Creighton; **VOLUNTEER FACULTY: PROFESSOR** Leo T. Hood, M.D. 1946 Ne.; **ASSOCIATE PROFESSORS** Stanley M. Bach, M.D. 1941 Ne., Dwight W. Burney, Jr., M.D. 1943 Ne., Douglas O. DeShazer, D.D.S. 1956 Marquette, M.S. 1961 Ia., James W. Dinsmore, M.D. 1954 Ne., William R. Hamsa, Jr., M.D. 1958 Ne., David W. Minard, M.D. 1956 Ne., Richard C. Pitner, M.D. 1960 Ne., James R. Scott-Miller, M.D. 1954 Ne., Richard D. Smith, M.D. 1943 Ne.; **ASSISTANT PROFESSORS** Thomas C. Bush, M.D. 1964 Ne., Robert M. Cochran II, M.D. 1971 Ne., David N. Kettleston, M.D. 1964 Mn., Michael T. O'Neill, M.D. 1963 Ne., James K. Styner, M.D. 1965 Ca. at Irvine, John G. Yost, M.D. 1947 Ne.; **CLINICAL ASSISTANT INSTRUCTORS** Samar K. Ray, M.B.B.S. 1964 Calcutta (India), Ronald O. Schwab, M.D. 1975 Ne., Chester H. Waters, III, M.D. 1975 Ne., Howard R. Woodward, M.D. 1973 Northwestern, John C. Yeakley, M.D. 1971 Ne.; **INSTRUCTOR** Bradley C. Rosenberger, B.S. 1975 NY

### ORTHOPAEDIC SURGERY SERVICES

- Hospital, University of Nebraska, Chief, John F. Connolly
- Section of Fractures and Adult Reconstructive Surgery, John F. Connolly, O. Max Jardon
- Section of Children's Orthopaedics, Director Walter W. Huurman
- Section of Hand Surgery, Thomas P. Ferlic
- Section of Sports Medicine, Director W. Michael Walsh
- Section of Orthopaedic Research, Director Louis Lippiello; Dennis Chakkalakal
- Hospital, Veterans Administration (Omaha), Chief, John F. Connolly
- Hospital, Veterans Administration (Lincoln), Chief, Ronald O. Schwab
- Hospital, Bishop Clarkson Memorial, Chief, Dwight W. Burney, Jr.
- Hospital, Nebraska Methodist, Chief, L. Thomas Hood

Orthopaedic surgery deals with the diseases, deformities and injuries of the structures composing the musculoskeletal system.

## ORTHOPAEDIC SURGERY — 48

### 722 Orthopaedic Wards and Clinic Elective, Dr. Connolly

Periods offered: Each 4 weeks

Student limit: 12

Semester hours: 4

Prerequisite: General Surgery Clerkship

This elective is intended as an introduction to clinical orthopaedics which will allow the student to appreciate the scope of orthopaedic surgery and rehabilitation, as well as some of the problems that commonly are associated with musculoskeletal injuries and diseases. The clinical clerk is expected to participate actively in the workup and care of both inpatients and outpatients. Objectives of this course are outlined and emphasized at the beginning of the elective and the student's attainment of these objectives is demonstrated by oral and written examination at the end of the rotation.

### 724 Orthopaedic Sports Medicine, Dr. Walsh

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: Orthopaedic Ward and Clinic Elective (722)

The purpose of this rotation is to provide the student with the opportunity to learn how to evaluate and manage sports injuries and related medical problems. It will be coordinated with University of Nebraska at Omaha athletic programs. Both UNO athletic training facilities and the UNMC orthopaedic clinic will be utilized.

### 762 Off-Campus Orthopaedic Surgery Elective

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

Prerequisite: Orthopaedic Ward and Clinic Elective (722)

Orthopaedic clerkships in University-affiliated teaching hospitals or approved private orthopaedic offices elsewhere may be elected. The objectives of this elective are outlined and emphasized by the UNMC Department of Orthopaedic Surgery and Rehabilitation at the beginning of the elective. The student's attainment of these objectives must be demonstrated by an oral and written examination at the end of the rotation, to be taken at the University Medical Center.

### 772 Orthopaedic Surgery Residency

The program is a five-year residency which meets the requirements for Board eligibility. In most instances, applicants are accepted directly out of medical school but an opening is occasionally available for the individual who has completed the preliminary 1-2 years of postgraduate training.

The Department of Orthopaedics uses the facilities of the University Hospital, the Omaha and Lincoln Veterans Administration Hospitals, Childrens and Methodist Hospitals. Additional rotations are periodically available for residents at Creighton-St. Joseph's Hospital. During these years, the resident is given an opportunity to progressively increase responsibility to administer and direct both the general orthopaedic services at these hospitals and the specialty services such as Sports Medicine, Hand Surgery and Children's Orthopaedics. This allows exposure to the full gamut of orthopaedic medical, surgical, and rehabilitative problems.

The residents are encouraged to begin an independent research program in either the clinical or basic science area. Laboratory facilities, as well as help and support from the full-time faculty, are always available. In addition, teaching seminars are scheduled on a regular basis throughout the year. These include conferences in pathology, biochemistry and physiology of bone, anatomy, biomechanics and biomaterials, particularly as they are related to orthopaedics.

### 799 Research in Orthopaedic Surgery

Periods offered: Each 8 weeks

Student limit: 2

Semester hours: 8

The objective of this elective is to allow selected students an opportunity for concentrated periods of research in musculoskeletal problems. The student will work with faculty in areas of their research interests which include electrical bone growth stimulation, fracture healing, arthritis, malignant hyperthermia, epiphyseal injuries and microvascular surgery. Both clinical and research opportunities are available as well as well-equipped laboratory facilities and technical assistance. Some clinical experience may also be gained during this time, particularly if applied to the research project.

The student will be required to complete the research project and present results at the department's monthly Grand Rounds. Grades will be based on the research effort, as well as the presentation of results.

## OTOLARYNGOLOGY

**PROFESSOR** Anthony J. Yonkers (Chairman), M.D. 1963 Mi.; **ASSISTANT PROFESSORS** Gary F. Moore, M.D. 1979 Ne., Frederic P. Ogren, M.D. 1977 Ne., Trent Quinlan, M.D.; **CLINICAL ASSOCIATE PROFESSORS** William S. Carter, M.D. 1960 Ne., Robert E. Lovgren, M.D. 1939 Ne.; **CLINICAL ASSISTANT PROFESSORS** Deborah Adkins, M.D. 1971 Ne., William L. Beck, M.D. 1958 Ne., David H. Chait, M.D. 1971 Ne., Michael N. Crawford, M.D. 1973 Ne., Wallace E. Duff, M.D. 1968 Ne., Robert L. Ferrell, M.D. 1965 W.V., Donovan B. Foote, Jr., M.D. 1961 Ne., Barbara B. Heywood, M.D. 1973 Ne., L. Thomas Heywood, Jr., M.D. 1975 Ne., Michael F. Jones, M.D. 1970 Ia., Louis Kleager, M.D. 1977 Ne., Edward S. Manness, M.D. 1949 Mo., Foy B. Mitchell, Jr., M.D. 1976 Tn., Iris J. Moore, M.D. 1979 Ne., Paul S. Sherrerd, M.D. 1979 Ne., Gerald B. Simons, M.D. 1974 Ne., Richard A. Stemm, M.D. 1977 Ne., Dudley A. Syre, M.D. 1971 Ne., Thomas J. Tegt, M.D. 1979 Ne.; **CLINICAL INSTRUCTOR** John J. Tremble III, Ph.D. 1980 Ne.; **ASSOCIATE** Raymond O. Gillies, M.D. 1945 Ne.; **EMERITUS** J. Allan Davis, M.D. 1946 Ne., John C. Davis, Jr., M.D.

### OTOLARYNGOLOGY — HEAD AND NECK SURGERY — 52

#### 720 Otorhinolaryngology Clerkship, Dr. Yonkers

Periods offered: Each 4 weeks

Student limit: 4 at UNH, 2 at BCMH

Semester hours: 4

The student is involved closely with all facets of otorhinolaryngology, gaining a view of the scope of this field. Evaluation of patients, diagnostic considerations and management approaches are emphasized. The student will participate in all the activities of the department, including clinical responsibilities, operations, and formal teaching exercises.

#### 760 Off-Campus Elective

Periods offered: By arrangement

Student limit: By arrangement

Semester hours: 4

Clerkships at the Veterans Administration Hospital in Omaha or with some of the private practitioners in the Omaha-Lincoln area. By individual approval only.

#### 772 Core Residency in Otorhinolaryngology

This five-year program requires one year of approved surgical residency and four years of otolaryngology residency and graduation from an approved medical school. This is the standard residency program which prepares the resident for examination by the American Board of Otorhinolaryngology. This program is described in the department literature on residency training.

## PATHOLOGY AND MICROBIOLOGY

**PROFESSORS** David T. Purtilo (Chairman), M.D. 1967 Northwestern, William M. Berton, M.D. 1949 Ca., Samuel M. Cohen, M.D., Ph.D. 1972 Wi., George R. Dubes, Ph.D. 1953 Ca. Inst. of Tech., Leon B. Ellwein, Ph.D. 1970 Stanford, Robert E. Greenfield, M.D. 1945 Il., Sonny L. Johansson, M.D., Ph.D. 1972, 1976, Univ. of Goteborg, Harry W. McFadden, M.D. 1943 Ne., Norman G. Miller, Ph.D. 1953 Wa. State, Robert F. Ramaley, Ph.D. 1964 Univ. of Minnesota, Donald P. Skoog, M.D. 1968 Ne., Richard B. Wilson, M.D. 1945 Ne.; **ASSOCIATE PROFESSORS** Jerry W. Jones, M.D. 1958 Cincinnati, Arden E. Larsen, Ph.D. 1970 Ne., James R. Newland, M.D. 1965 Ne., David J. Volsky, Ph.D. 1979 Hebrew Univ. of Jerusalem, Roger H. Kobayashi, M.D. 1975 Ne., Robert E. McCarthy, Ph.D. 1956 Brown, T. L. McDonald, Ph.D. 1972 Wa. State, Bruce M. McManus, M.D. Ph.D. 1977 Saskatchewan, C. Kirk Phares, Ph.D. 1971 La. State, Solon L. Rhode III, M.D. 1964 M.D., Ph.D. 1968 Jefferson, Dennis D. Weisenburger, M.D. 1974 Mn., Roberta J. White, Ph.D. 1961 Ca.; **ASSISTANT PROFESSORS** Sheldon J. Booth, Ph.D. 1975 Ne., Christopher Crotty, M.D. 1975 Ne., Mary C. Haven, M.S. 1964 Creighton, Marietta M. Henry, M.D. 1967 In., Marion R. Hicks, M.S. 1967 Ohio St., Donald R. Johnson, Ph.D. 1977 Il., Marilyn W. Johnson, M.P.H. 1958 Johns Hopkins, Roberta L. Kruger, M.D. 1959 Mi., Patrick K. Lai, Ph.D. 1978 Univ. Western Australia, Carl W. Ludvigsen, M.D., Ph.D. 1980 Washington, James Linder, M.D. 1980 Ne., Helen L. Lipscomb, Ph.D. 1978 Ne., Rodney D. McComb, M.D. 1976 Rochester, A. Rizzino, Ph.D. 1974 State Univ. of New York,

Phillip W. Smith, M.D. 1972 Chicago; **INSTRUCTORS** Joyce Kinsey, M.D. 1976 Ne., Faruk Sinangil, Ph.D. 1980 Hacettepe Univ. (Turkey), Raymond A. Smith, Ph.D. 1982, Univ. of Manchester, Paul Yam, Ph.D. 1985 Ne.; **ASSISTANT INSTRUCTOR** Rodney S. Markin, M.D. 1983 Ne., Ph.D. 1980 Ne.; **POST-DOCTORAL RESEARCH ASSOCIATES** Domenic Casareale, Ph.D. 1981, Univ. of Mass., Koji Sakai, Ph.D. 1983 Kyoto Univ., Takao Sakata, M.D. 1975 Kurume Univ., Mario Stevenson, Ph.D. 1983 Univ. of Strathclyde, Yintang Wu, M.D. 1956 Zhongshan Med. College, Norimasa Yasuda, M.D. 1982 Kyoto Univ.; **PROFESSORS - COURTESY** Richard B. Davis, M.D. 1953 Ia., Ph.D. 1964 Mn., Parvis Pour, M.D. 1963 Med. Center Dusseldorf, Merton A. Quaife, M.D. 1957 Ne.; **ASSOCIATE PROFESSORS - COURTESY** Bruce Buehler, M.D. 1970 Fl., Kashinath D. Patil, Ph.D. 1971 Wa., William G. Sprague, D.D.S. 1947 Western Reserve, Jai K. Koh, M.D. 1960 Seoul Nat'l. Univ., Warren G. Sanger, Ph.D. 1974 Ne., Robert A. Stratbucker, M.D. 1960 Ne.; **CLINICAL PROFESSORS** Jerald R. Schenken, M.D. 1958 Tulane, Milton Simons, M.D. 1947 Ne.; **CLINICAL ASSOCIATE PROFESSORS** Earl Greene, M.D. 1952 Ne., Morton H. Kulesh, M.D. 1945 Ia., Edward B. Price, M.D. 1946 Fl., Blaine Y. Roffman, M.D. 1961 Ne.; **CLINICAL ASSISTANT PROFESSORS** Joe L. Auchmoedy, M.D. 1968 Ne., Lloyd L. Barta, M.D. 1946 Ne., Samuel E. Boon, M.D. 1973 Ne., Mary Case, M.D. 1976 Ne., Francis C. Coleman, M.D. 1941 Tulane, Christopher Crotty, M.D. 1975 Ne., Donald A. Dynek, M.D. 1965 Ne., George E. Gammell, M.D. 1964 Ne., John M. Grier, M.D. 1961 Ne., Roger A. Gunn, M.D. 1972 Ne., Marc R. Hapke, M.D. 1971 Il., Alfred Hartman, M.D. 1968 Ne., Orin R. Hayes, M.D. 1952 Ne., Marietta Henry, M.D. 1967 In., Gene N. Herbek, M.D. 1975 Ne., Michael T. Kafka, M.D. 1977 Ne., Robert L. Kruger, M.D. 1959 Mi., David L. Kutsch, M.D. 1961 Ne., Martin R. Lohff, M.D. 1961 Ne., Wayne Markus, M.D. 1969 Ne., Gerald L. Morris, M.D. 1964 Ne., Stephen M. Nielsen, M.D. 1969 Ne., Daniel R. Olson, M.D. 1966 Ne., Joseph S. Pennepacker, M.D. 1945 Boston, Joseph M. Rapoport, 1973 Ne., Andrew G. Rasmussen, M.D. 1973 Ne., Richard G. Runge, M.D. 1970 Ia., John W. Scott, M.D. 1955 Ne., Robert F. Shapiro, M.D. 1965 Ne., Edgar H. Smith, M.D. 1965 Ne., Won Tai Sohn, M.D., Milton N. Stastny, M.D. 1961 Ne., Daniel J. Till, M.D. 1964 Ia., Larry D. Toalson, M.D. 1963 Mo., Thomas L. Williams, M.D. 1974 Ne., Rodney Koerber, M.D. 1972 Ne.

The goal of the department is to provide an intellectual bridge between the basic and clinical sciences. The faculty operates under the belief that the second year of medical school is crucial in building a knowledge base which will serve as a foundation for the student's practice of clinical medicine. Medical Microbiology I and II address immunology, basic bacteriology, mycology, parasitology, molecular biology, and virology. Emphasis is placed on the role pathogens play in human disease. General Pathology I and II are comprehensive, organ-based studies addressing the etiological factors, mechanisms, structural alterations, pathophysiology, and laboratory diagnosis of disease. The role of the laboratory in diagnostic medicine is further explored in Clinical Pathology 622 which seeks to instruct students in interpretation of laboratory tests, and the cost-effective use of the laboratory.

## **PATHOLOGY AND MICROBIOLOGY — 57**

**618/619 Medical Microbiology and Immunology I, II (6 & 3 s h cr respectively) McFadden and Staff (820/821 G)**

Pathology Microbiology 618 and 619 aim to acquaint students with the basic principles of microbiology and immunology particularly as these relate to infection and disease. The instruction offered in these courses is supplemented with more advanced and specialized courses (640 to 999) for students who are candidates for the M.S. or Ph.D. degree and for other students such as the honors student, residents in specialty training, and others desiring advanced work in medical microbiology, independently of the requirements for a degree. For more details concerning the program in graduate education, please see the *Bulletin of Graduate Studies* of the University of Nebraska Medical Center or the *Handbook of Clerkships and Electives* of the College of Medicine. Certain of these advanced level courses which have been attractive to medical students in the past are listed for the student's convenience. These courses, when taken in sequence, comprise a composite course in Medical Microbiology and Immunology extending over two academic semesters. The courses consist of lectures, conferences, and laboratories. The basic principles of bacteriology, mycology, parasitology, virology, immunology and microbial genetics are covered. The cultural characteristics and pathogenic properties of medically important species of bacteria, fungi, and viruses are presented. Host-parasite relationships including immunological responses to infections are described. Protozoa, heminths, and arthropods of medical importance are studied.

**620 General Pathology I (5 s h cr) (820G)**

Prerequisite: Human Gross Anatomy, Histology, Neuroanatomy, Embryology, Cellular and Systems Biochemistry (Medical), and Medical Physiology Parts I and II

Emphasis in this course is on reactions of cells and tissues to injury. The etiology and pathogenesis of major disease are stressed. Concepts and principles of cellular and tissue reactions are then extended to the study of human disease by organ systems. In the systemic approach, specific correlations with morphologic reactions to injury are emphasized with integration of additional basic science data pertinent to etiology, pathogenesis, and prognosis of specific disease. Instruction is by lecture, illustrated demonstrations and laboratory, and regularly scheduled Small Group Discussion periods. The Small Group Discussions are designed to emphasize the case study approach to the understanding of diseases. Participation in autopsies provides concrete clinical learning experiences for the student. Laboratory sessions provide opportunities for students to see demonstrations of gross specimens and to study microscopy of the cases.

**621 General Pathology II (5 s h cr) (821G)**

Prerequisite: General Pathology I

The study of human disease by systems is continued. The case study approach is strongly emphasized. Clinical pathological correlation is continued through the microscopic evaluation of selected cases and the continuation of Small Group Discussion groups. These are scheduled to correlate with, and to expand, the content of formal lectures. Continuous introduction of material from other basic sciences is part of our strategy. Where appropriate, members of other basic science departments and/or of the clinical teaching staff are asked to contribute. Again the instruction is largely by lectures, illustrated demonstrations, laboratory, autopsy participation, and through regularly scheduled Small Group Discussion periods.

**622 Clinical Pathology (5 s h cr) (822G)**

Prerequisite: General Pathology I and II

The course in Clinical Pathology emphasizes the basic rationale (scientific, medical, and technical) for the selection and interpretation of laboratory tests necessary to the practice of medicine. The format includes lectures, demonstrations, and Small Group Discussions. Content is correlated with that of both General Pathology I (620M) (820G) and II (621M) (821G).

**640 Diagnostic Bacteriology (2-6 s h cr) (940G) McFadden, Staff**

Prerequisites: A laboratory course in Bacteriology and MM 620, 621 or equivalent, or by permission. By arrangement.

Special techniques for isolation, identification, and susceptibility testing of microorganisms from clinical material available in the diagnostic laboratories of the University of Nebraska Medical Center. Practical approach with conference and laboratory.

**642 Diagnostic Virology (3-6 s h cr) (942) White, Staff**

A study of specific techniques for the isolation and identification of viruses from clinical material available in the diagnostic virology laboratory of the University of Nebraska Medical Center. Practical approach with conference and laboratory.

**660 Off-Campus Elective (cr arr) McFadden**

By permission.

Tutorial or preceptor experience in some aspect of Medical Microbiology, Immunology, or Infectious Disease (basic or clinical).

**692 Advanced Topics in Microbiology (cr arr) by permission (992G) Staff**

This course constitutes advanced study (research other than thesis) in one of the several disciplines of medical microbiology such as bacteriology, immunology, mycology, virology, parasitology, electron microscopy, tissue culture, etc.

NOTE: Medical students who wish to take a Basic Science Elective clerkship experience in Medical Microbiology may register, after appropriate departmental consultation, in this course.

**702 Forensic Pathology**

Prerequisite: General Pathology I and II

Forensic Pathology essentially addresses all aspects of legal medicine with special emphasis on the contribution of the pathologist.

**720 Pathologic Anatomy**

Periods offered: Every 4 weeks

Student limit: By arrangement

Semester hours: 4

Prerequisite: General Pathology I and II

The Department provides students the opportunity to pursue, in depth, the pathologic anatomy of disease, utilizing a variety of modes and emphasizing structural abnormalities. This course is based in Surgical (Dr. Linder), Autopsy Pathology (Dr. McManus),

and Neuropathology (Dr. McComb). Students are assigned to individual staff members by arrangement. This period may be integrated in part with Clinical Pathology 722 by arrangement.

**722 Clinical Pathology and Laboratory Medicine, Staff**

Periods offered: Every 4 weeks

Student limit: By arrangement, 1-2 students in each specialty at one time.

Semester hours: 4

Prerequisites: General Pathology I and II, and Clinical Pathology (622)

The Department provides opportunities for students to study laboratory medicine, by subspecialty, within the diagnostic laboratory. These studies are designed to expand the student's understanding of the relationship of diseases to interpretable functional abnormalities. Experience in the following clinical laboratory subspecialties is available: Clinical Chemistry (Dr. Ludvigsen), Blood Banking, Virology (Drs. Purtilo and Volsky), Hematology (Drs. Weisenburger and Newland), Microbiology, Immunology (Drs. Johnson, Lipscomb, Purtilo, Larsen), clinical research, and Special Clinical Chemistry. Individual students are assigned to staff members with specific interests in one or more of these specialty areas. In-depth correlation and appropriate interpretation of clinical laboratory data is stressed. By arrangement, a student may elect to spend a part of one four-week period in Pathologic Anatomy 720 in order to better correlate structural and functional abnormalities.

**760 Off-Campus Elective**

Periods offered: Every 4 weeks

Student limit: By arrangement

Semester hours: 4

Prerequisites: General Pathology I and II, Clinical Pathology (622)

Approved clerkships in University or teaching hospitals elsewhere may be individually arranged. Approval by the Chairman of the Department of Pathology and Microbiology and other concerned parties is mandatory.

**774 Pathology and Laboratory Medicine Residency**

Prerequisites: General Pathology I and II, Clinical Pathology

This is a full-time, four-year program in Pathologic Anatomy and in Clinical Pathology. It is designed to fulfill the requirements of the American Board of Pathology. Certification in Pathology consists of 3-month rotating periods in Clinical Pathology and its various components such as Hematology, Immunohematology, Microbiology, Clinical Chemistry, Autopsy Pathology, and Cytology. If the individual so desires, and it is acceptable to the Director, twelve months of this four-year residency may be spent in research or other special training in immunopathology, neuropathology, nephropathology, experimental carcinogenesis, etc. Exceptional students may enroll and receive up to six months credit for their boards in pathology should they begin studies after the second year of medical school.

**799 Special Problems and Research (4 weeks)**

Prerequisites: General Pathology I and II, Clinical Pathology

The student interested in investigative and/or special problems in Pathology is encouraged to discuss available opportunities with appropriate faculty. Major investigations are ongoing in Oncology, Virology, Immunology, Computers, Genetics, Tissue Culture, Diabetes, Cardiovascular Chemistry and Molecular Biology.

## PEDIATRICS

**PROFESSORS** Carol R. Angle (Chairman), M.D. 1951 Cornell, Rashid A. Al-Rashid, M.D. 1960 American Beirut, Paul K. Mooring, M.D. 1957 Columbia, Paul Pearson, M.D. 1947 Chicago, 1966 Wa., Hobart E. Wiltse, M.D. 1958, Ph.D. 1965 Ne.; **ASSOCIATE PROFESSORS** Bruce A. Buehler, M.D. 1970 Fl., Louise F. Eaton, M.D. 1945 In., Philip J. Hofschire, M.D. 1970 Ne., Yoshio Miyazaki, M.D. 1962 Hahnemann, Robert M. Nelson, Jr., M.D. 1970 Wa., Samuel H. Perry, M.D. 1947 Ne., E. Jack Trembath, M.D. 1951 Melbourne (Victoria, Australia), Jon A. Vanderhoof, M.D. 1972 Ne.; **ASSISTANT PROFESSORS** Dean Antonson, M.D. 1974 Ne., David L. Bolam, M.D. 1970 Ne., John L. Colombo, M.D. 1975 Ne., John P. Cheatham, M.D. 1976 Ok., Mark T. Houser, M.D. 1975 Ne., Carol A. Huseman, M.D. 1971 Cincinnati, Roger Kobayashi, M.D. 1975 Ne., John D. Kugler, M.D. 1974 Ne., Larry A. Latson, M.D. 1976 Baylor, Warren G. Sanger, Ph.D. 1974 Ne., John N. Walburn, M.D. 1973 Ne.

The aim of this department is to develop in the student an understanding of human growth and development, as well as the diseases characteristic of infancy, childhood and adolescence. This is done through small group bedside conferences and seminars, clinical clerkship at the University Hospital and the CHildren's Memorial Hospital, and the outpatient

service at the University Hospital. Special orientation and training in rehabilitation are given at the C. Louis Meyer Children's Rehabilitation Institute.

## **PEDIATRICS — 60**

### **706 Comprehensive General Pediatrics I, Dr. Wiltse**

Periods offered: Each 4 weeks

Student limit: 18 total for COMP GEN PED I and COMP GEN PED II combined during any month; no separate limits for the two units

Semester hours: 4

### **707 Comprehensive General Pediatrics II, Dr. Wiltse**

Periods offered: Each 4 weeks

Student limit: 18 total for COMP GEN PED I and COMP GEN PED II combined during any month; no separate limits for the two units

Semester hours: 4

Comprehensive General Pediatrics consists of (4 weeks each) ambulatory pediatric experience with primary care emphasis and experience at Childrens Hospital. Prior to beginning the COMP GEN PED Units, students will have an opportunity to indicate choices of specialty and continuity clinics, well newborn nursery, Children's Rehabilitation Institute, Preventive Care Clinic, and one or more afternoons per week in offices of pediatricians in private practice. Throughout COMP GEN PED I and COMP GEN PED II, attendance will be expected in an intensive didactic course which meets daily, covering major topics in clinical pediatrics and required 3-4 daily hours of preparation time.

### **708 Problems in Clinical Pediatrics I, Dr. Wiltse**

Periods offered: Each 4 weeks

Student limit: 9

Semester hours: 4

This course consists of inpatient, largely specialized pediatric experience, at University Hospital only. Emphasis is upon independent, supervised, problem-solving experience and development of diagnostic skills. There are no core lectures, but a variety of case-related conferences.

### **709 Problems in Clinical Pediatrics II, Dr. Wiltse**

Periods offered: Each 4 weeks

Student limit: 0-8 depending upon openings

Semester hours: 4

This course is an option available to students who wish to continue, and build upon, the problem-solving experience at PROB CLIN PED I within a specialized area of pediatrics. A student who wishes to exercise this option should reserve a slot in one of six available electives (neonatology, cardiology, hematology, endocrinology, metabolism-genetics, gastroenterology) and register for this as PROB CLIN PED II. Students interested in this option should discuss it with the clerkship coordinator prior to registration.

### **722 Pediatric Cardiology and Cardiovascular Disease, Hofschire, Kugler, Cheatham, Latson, Mooring**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: Required Pediatric Clerkship or 20-705

This elective is intended for students desiring to further their knowledge of congenital heart disease and rheumatic fever. It should be especially useful for those who will practice either pediatrics, general practice, or thoracic surgery. Using the excellent clinical material available, the student will become proficient in auscultation and in the diagnosis and management of infants and children with heart disease. The student should become familiar with pediatric electrocardiography and cardiac catheterization. Some time will be spent in observation of heart surgery and the post-operative management of heart surgery patients. Correlate hemodynamic studies with patient history and observation. Become familiar with specialized techniques: electrocardiography, cardiac catheterization, dye dilution and hydrogen curve analysis, phonocardiography, vectrocardiography, apex cardiography, central venous pressure, cardiopulmonary resuscitation. Improve examination skills, especially in auscultation, introduction to ongoing research projects. Learn systematic approach to radiologic diagnosis of heart and vascular disease in plain films, fluoroscopy, and angiographic studies. Gain an understanding of operations for cardiovascular disease, including open heart surgery and post-operative management.

**726 Pediatric Hematology and Oncology, Al-Rashid**

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will see patients with hematological diseases in the Jahr Pavilion and Newborn Nursery with the staff hematologist. Also, the student will work up all new patients seen in the outpatient Pediatric Hematology Clinic. An average of 8-10 patients are seen every Friday afternoon. Bone marrow sessions and seminars in hematological disease are held on a weekly basis. Opportunity for research work, clinical or laboratory, is available for students spending more than 10 weeks on the service. In addition to hematological disorders, the student will gain experience in tumors in children, chemotherapy, and exchange transfusion.

**727 Human Cytogenetics, Sanger**

Periods offered: Each 4 weeks

Student limit: 1

Semester hours: 4

Prerequisite: Pediatric Clerkship or 20-705, and medical school course in Human or Medical Genetics; Permission from Dr. Sanger before registration.

To familiarize students with laboratory techniques in human cytogenetics. Course content includes techniques and applications of sex chromatin preparations, short- and long-term tissue cultures, chromosome preparation, and karyotype analysis. Correlations with clinical cases.

**728 Neonatology, Bolam, Nelson**

Periods offered: Each 4 weeks

Student limit: 4

Semester hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will serve as the Nursery House Officer under the supervision of the staff neonatologist. This will include clinical responsibility for all newborns, day and night. There are 100-200 deliveries per month, including 20-40 "risk" deliveries.

**729 Pediatric Endocrinology, Huseman**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: Pediatric Clerkship or 20-705

This elective provides the student with experience in diagnostic problems of growth, pubertal development, thyroid dysfunction, and adrenal disorders in both inpatient and outpatient settings. Further experiences can be gained in disturbances of carbohydrate metabolism. This student will be responsible for the daily care of inpatients at UNH, endocrine consultations, and implementation of tolerance tests with the supervision of the staff. This elective is also available at Childrens Hospital if individual arrangements are made with Dr. Kevin Corley.

**730 Pediatric Gastroenterology, Vanderhoof, Antonson**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: Pediatric Clerkship and 20-705

The student will 1) become broadly familiar with gastrointestinal pathophysiology in infants, children, and adolescents, 2) assist in evaluation of patients with gastrointestinal, hepatobiliary, and nutritional disorders, 3) participate in gastrointestinal conferences and seminars twice weekly, 4) observe a variety of gastrointestinal procedures, and 5) gain some expertise in interpretation of gastrointestinal histopathology.

**731 Metabolic Disease and Genetics, Wiltse, Buehler**

Periods offered: Each 4 weeks

Student limit: 2

Semester hours: 4

Prerequisite: Pediatric Clerkship or 20-705

The student will be helped to develop skills in diagnosing, managing, and counseling patients with inherited and acquired disorders of metabolism and genetic defects. Familiarity can be gained with basic techniques in the genetics laboratory, and participating in genetic counseling is encouraged. Topics of particular interest to the student will be discussed in individual conferences.

- 732 Pediatric Pulmonary Disease** (including allergy and cystic fibrosis), Colombo, Kobayashi  
 Periods offered: Each 4 weeks  
 Student limit: 2  
 Semester hours: 4  
 Prerequisite: Basic Pediatric Clerkship or 20-705  
 The pediatric allergy clinic meets two half-days in which the student, under the supervision of the staff, evaluates and investigates new allergy patients with appropriate history, physical and skin testing procedures. Experience is obtained in the prescription of allergy hypsensitization extracts and in management of the desensitization course. Experience also is obtained in treatment of allergic emergencies such as acute asthma. The cystic fibrosis clinic meets two half-days a week and here the physician examines and follows children in all stages of this chronic and ultimately fatal pulmonary disease. There are opportunities to learn how to perform sweat tests and basic pulmonary function tests. Other pediatric chest diseases cared for include those children who have or have not had tuberculosis and need appropriate follow-up care. Daily ward rounds would be made with the staff on all those patients in the hospital with pulmonary disease. Within this elective, there is the possibility of spending additional time in a private allergist's office.
- 734 Nephrology**, Angle, Houser  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Prerequisite: Basic Pediatric Clerkship  
 This elective will center on a clinical research project in pediatric renal disease, to be designed by the student and Dr. Angle, and usually employing clinical studies carried out in the Pediatric Renal Clinic and Inpatient Service. In addition, the students will function as fellows in pediatric nephrology in the Renal Clinic and Inpatient and Intensive Care Unit.
- 736 Developmental Pediatric Practicum**, Trembath  
 Periods offered: Each 4 weeks  
 Student limit: 1  
 Semester hours: 4  
 Prerequisite: Basic Pediatric Clerkship  
 The student will assist and participate with the medical staff in the diagnosis, evaluation, and programming of children presenting significant developmental delays at Meyer Children's Rehabilitation Institute. An office practice format will be followed, and a schedule will be developed for each student to reflect individual interests and needs. Opportunity will be given to observe and participate in evaluations and therapies provided by other disciplines in the institute, such as psychology, speech pathology, physical therapy, occupational therapy, special education, vocational rehabilitation, and dentistry. The student will receive experience in the use of diagnostic screening techniques such as the Milani Comparetti Motor Development Screening Test and the Denver Developmental Screening Test. Students will participate in one or two State Services for Crippled Children Clinics at the institute. About seven complete evaluations are carried out each week and there are over 700 treatments a month in a variety of programs for children with developmental problems.
- 760 General Pediatric Preceptorship**  
 Periods offered: Each 4 weeks  
 Student limit: By arrangement only  
 Semester hours: 4  
 Pediatricians throughout the state, and particularly those who are members of Nebraska Pediatric Society, have expressed an interest in having medical students spend four or more weeks with them in their private offices.
- 764 Pediatrics Off-Campus Elective with University Affiliation**  
 Periods offered: Each 4 weeks  
 Student limit: None  
 Semester hours: 4  
 Senior students may request credit for any off-campus program which offers unusual opportunities in clinical or investigative pediatrics. Advance approval from the department is required.
- 766 Pediatric Off-Campus Elective in a Non-University Location**  
 Periods offered: Each 4 weeks  
 Student limit: None  
 Semester hours: 4
- 770 Clinical Genetics**, Sanger  
 Course contents and areas of study are: 1) An introduction to the field of medical genetics, 2) mitosis and meiosis, 3) human cytogenetics, 4) genes and man, and 5) genetic counseling.

#### 772 Pediatric Graduate Education

This three-year, full-time program involves clinical and research experience in all core aspects of the pediatric specialty which relate to a career in either pediatric practice or general academic and research pediatric pursuits. Correlation of the basic sciences and embryology, biochemistry, physiology, microbiology, ophthalmology and pathology is a structured component of the course.

#### 774 Pediatric Fellowship, Graduate Education

This course is limited to students who have completed at least two years of course 772. In-depth subspecialty pediatric education geared toward practice, academic, and research careers are available in the following:

- (a) Allergy and Chest
- (b) Cardiology
- (c) Cystic Fibrosis and Diabetes
- (d) Endocrinology and Metabolism
- (e) Genetics
- (f) Hematology
- (g) Multiply-Handicapped Children
- (h) Neurology
- (i) Newborn Medicine
- (j) Renology
- (k) Radiology
- (l) Infectious Disease
- (m) Psychology
- (n) Pediatric Neurology

#### 796 Pediatric Research, Staff

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

Prerequisite: By arrangement

A student interested in participating in an ongoing active research area within the Department of Pediatrics may arrange with the appropriate faculty to devote an elective month to laboratory investigation. By registering for the Pediatric Research elective, and a related clinical subspecialty elective in consecutive months, the student could arrange a flexible program providing simultaneous enrollment for a graduate level course in a related basic science subject.

#### 799 Fellowship in Cardiovascular Research, Hofschire

This elective is intended to provide assistance and supervision to a student interested in research in cardiology. Funds may be available for support.

## PHARMACOLOGY

**PROFESSORS** Manuchair Ebadi (Chairman, Ph.D. 1967 Mo., William O. Berndt, Ph.D. 1959 N.Y., Edward Bresnick, Ph.D. 1958 N.Y.; **ASSOCIATE PROFESSORS** Carl F. Gessert, Ph.D. 1955 Wi., Terry D. Hexum, Ph.D. 1968 Ks., Thomas E. Donnelly, Ph.D. 1972 Yale, Jean D. Deupree, Ph.D. 1970 Mi. State, L. Charles Murrin, Ph.D. 1975 Yale, Walter N. Piper, Ph.D. 1969 Purdue, Eric M. Scholar, Ph.D. 1967 Il.; **ASSISTANT PROFESSORS** Mark T. Houser, M.D. 1975 Ne., Charles W. Mackenzie III, Ph.D. 1975 So. Cal., Ronald F. Pfeiffer, M.D. 1973 Ne., Larry A. Robinson, M.D. 1972 Wash. Univ. St. Louis

### PHARMACOLOGY — 66

#### 307 Pharmacology for Physician Assistants (4 s h cr, w), Staff

Course director Gessert

The course is intended to provide the students with basic information in all of the major areas of pharmacology, including general principles, pharmacokinetics, drug interactions, chemotherapy, and the pharmacology of the autonomic and central nervous systems, and the cardiovascular, renal, gastrointestinal, and endocrine systems.

#### 319 Pharmacology for Physical Therapists (1 s h cr, w), Gessert

A brief survey of many aspects of pharmacology is presented with special attention to those drugs that will alter physical therapy technique and to physical therapy technique that will alter drug therapy.

#### 330 Pharmacodynamics for Students of Nursing (2 s h cr, w), Staff

Course director Scholar

**Pharmacology Courses No. 610-623, Course Director Ebadi**

**610 or 810 Pharmacokinetics** (1 s hr cr, f), Staff

**611 or 811 Neuro-psycho-pharmacology** (3 s hr cr, f), Staff

**612 or 812 Systems Pharmacology I** (2 s hr cr, w), Staff

**613 or 813 Systems Pharmacology II** (2 s hr cr, w), Staff

The four lecture courses (total 8 s hr cr) listed above (610, 611, 612, and 613 or 810, 811, 812, and 813) together cover all aspects of basic medical pharmacology, including the following: General principles and pharmacokinetics; drug actions on the central, peripheral, and autonomic nervous systems and on cardiovascular, renal, gastrointestinal, and metabolic functions; chemotherapy of infectious diseases and neoplasms; toxicology; misuse of drugs.

**623 or 823 Clinical Pharmacology** (1 s hr cr, w), Pfeiffer

The application of basic pharmacological concepts in the rational clinical use of drugs in the prevention, diagnosis and treatment of human diseases.

**628 Developmental Pharmacology**, Murrin

Periods offered: Winter

Student limit: Minimum of 5

Semester hours: 1

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Physiological and biochemical changes that influence drug metabolism from prenatal to adolescent periods.

**629 Mechanisms of Toxicity**, Berndt, Bresnick, and Piper

Periods offered: Winter

Student limit: Minimum of 5

Semester hours: 1

Prerequisites: Medical Pharmacology 610, 612, 613, and 623 or consent of instructor

Discussion of the molecular mechanisms involved in the toxicity of therapeutic agents, poisons, and environmental pollutants.

**632 Biogenic Amines in Health and Disease**, Ebadi, Hexum, Murrin, Pfeiffer

Periods offered: Winter

Student limit: Minimum of 5

Semester hours: 1

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Diseases in which over- or under-production of specific amines plays a prominent role in abnormal organ function.

**633 Antiinfective Drugs**, Scholar

Periods offered: Winter

Student limit: Minimum of 5

Semester hours: 1

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Actions, indications, mechanisms, and adverse effects of antibiotics and synthetic chemotherapeutic agents used in infectious diseases.

**634 Cancer Chemotherapy**, Scholar

Periods offered: Winter

Student limit: Minimum of 5

Semester hours: 1

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor

Indications for and mechanisms of action of antineoplastic agents currently used and those which are under development and investigation.

**635 Role of Cyclic Nucleotides in Hormone Actions**, Donnelly and Mackenzie

Periods offered: Fall

Student limit: Minimum of 5

Semester hours: 2

Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor.

The molecular mechanisms involving Cyclic AMP and Cyclic GMP in modulating the actions of various hormones and drugs used in pharmacology.

- 705 Molecular Pharmacology**, Donnelly and Staff  
 Periods offered: Winter  
 Student limit: Minimum of 5  
 Semester hours: 2-3  
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor  
 An extensive treatment of the principles of drug action as the basis of pharmacology.
- 721 Advanced Pharmacology of the Autonomic Nervous System**, Hexum and Staff  
 Periods offered: Winter  
 Student limit: Minimum of 5  
 Semester hours: 2  
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor  
 The effects of drugs on the autonomic nervous system with emphasis on receptor interactions, events in transmission and specific drug effects.
- 725 Biochemical Properties of General Anesthetics, Sedatives and Hypnotics**, Deupree  
 Periods offered: Fall  
 Student limit: Minimum of 5  
 Semester hours: 2  
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor  
 Current theories of pharmacological effects of anesthetics, sedatives, and hypnotics.
- 735 Advanced Neuropsychopharmacology**, Murrin  
 Periods offered: Winter  
 Student limit: Minimum of 5  
 Semester hours: 2  
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor  
 Study of the effects and side effects of neuropsychopharmacological agents.
- 760 Off-Campus Pharmacology Electives or Clerkships**, Ebadi  
 Periods offered: Open  
 Student limit: By individual approval only  
 Semester hours: Arranged  
 Prerequisites: Medical Pharmacology 610, 611, 612, 613, and 623 or consent of instructor  
 Pharmacology research electives in universities or research institutes or clerkship in clinical pharmacology in teaching hospitals or medical centers elsewhere.

#### **Additional Courses in Pharmacology:**

Flexible studies in pharmacology (1 semester hour each) are provided to offer medical students additional opportunities to further pursue in-depth experiences in pharmacology beyond those obtained from the courses listed above. Research opportunities in select areas of pharmacology will also be made available. These research experiences may be provided on a short- (8 week) or a long-term (18 months) basis.

In certain areas it may be desirable for a student to make arrangements to study a specific problem with guidance from both a clinical faculty and a staff member of the Department of Pharmacology. Every attempt will be made by the faculty of the Department of Pharmacology to integrate the information to be presented with the appropriate faculty of the clinical department. In brief, whenever possible, these electives will be designed to remain flexible in nature and commensurate with the career objectives and/or educational background of the students.

## **PHYSIOLOGY AND BIOPHYSICS**

**PROFESSORS** Joseph P. Gilmore (Chairman), Ph.D. 1963 George Washington, Lawrence A. Bennett, Ph.D. 1933 Chicago, M.D. 1937 Rush (Emeritus), Francis J. Clark, Ph.D. 1964 Purdue, William L. Joyner, Ph.D. 1971 No. Car., Michael C. Moriarty, Ph.D. 1968 Rochester, Frederick F. Paustian, M.D. 1953 Ne., Frederick Ware, Ph.D., M.D. 1956 Ne.; **ASSOCIATE PROFESSORS** Gary T. Campbell, Ph.D. 1972 Northwestern, Kurtis G. Cornish, Ph.D. 1977 Bowman Gray, Eelco D. Gerlings, M.D. 1963, Ph.D. 1966 Amsterdam, Thomas P.K. Lim, M.D. 1948 Severance Union Medical College (Korea), Ph.D. 1953 Northwestern, Michael Mann, Ph.D. 1971 Cornell; **ASSISTANT PROFESSORS** William C. Bell, Ph.D. 1975 Pitts., William T. Lipscomb, Ph.D. 1970 Ky.

Course 510 in Medical Physiology and Biophysics is required for the degree of Doctor of Medicine. This course provides a widely inclusive study of functional mechanisms within the body. To complement biochemical and morphological studies in other departments,

emphasis is placed upon the application of biophysical principles to the understanding and measurement of processes in the body. This medical course includes pathophysiology with illustrative problems from clinical medicine to reinforce the student's understanding of normal function and to prepare the student for the application of physiological and biophysical principles to clinical medicine. Course 510 does not carry graduate credit toward an M.D. or Ph.D. degree; if graduate credit is desired, the student must register for Course 810.

Courses in the 600/700 series are designed as electives carrying credit toward the M.D. They normally do not carry graduate credit. However, students in a combined M.D./Ph.D. program can arrange to obtain graduate credit for many of these courses. We encourage students interested in a research-oriented career to investigate the combined program. If you would like more information about how you might earn the Ph.D. degree in Physiology in addition to the M.D. degree, please contact Dr. J. P. Gilmore or Dr. F. J. Clark. We welcome your inquiry. Also, see the *Bulletin of The Graduate College* for details about advanced degree programs.

## PHYSIOLOGY AND BIOPHYSICS — 68

### 510 **Medical Physiology** (Second Sem) (9 sem hr) (810G)

Lecture, Conf.

Initially the processes that regulate the activity of individual cells and organ systems are introduced. Topics covered include membrane physiology of single cells and neurophysiology. Subsequently, consideration is given to cardiovascular, renal, respiratory, gastrointestinal and endocrine physiology. Clinical applications of the material are emphasized.

### 690 **Research Experience in Physiology**

Semester hours: By arrangement

Student limit: 1-2 per field

Prerequisites: By arrangement

These are planned as tutorial relationships to be arranged with a staff member who will familiarize the student(s) with research techniques and experimental procedures. Students may choose problems in the investigator's laboratory. The student will be expected to spend full time for a full semester, or large fraction thereof.

1. Renal
2. Techniques in Neurophysiology
3. Cardiovascular Physiology
4. Membrane Transport
5. Endocrinology

### 760 **Off-Campus Elective**

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

**604 Techniques in Experimental Surgery**, 3 cr. The course consists of instruction in basic surgical techniques and provides an opportunity for the students to get hands-on experience. Included are instructions in the use of chronic instrumentation for studying the cardiovascular system of large animals in research and their postoperative care. Prereq: Physiol 810 or equivalent/consent of instructor.

**614 Scientific Writing**, 1 cr. To prepare students for writing grant proposals, manuscripts of scientific papers, essay and examination questions. Prereq: Consent of instructor.

**626 Biomedical Instrumentation**, 3 cr. An introduction to electronic circuits, transistors, and integrated circuit "chips". Topics will include methods of recording and measuring biological signals and digital circuits. Prereq: Permission of instructor.

**702 Special Topics**, 1-4 cr — max 8. A review of current research problems in the various fields within physiology, taken on an individual basis with one or two members of the staff; or in the form of a special seminar series devoted to a particular area of research. Prereq: Physiol 810 or equivalent.

**716 Advanced Cardiovascular Physiology**, 2 cr. The course consists of an in-depth discussion of a selected area in cardiovascular physiology with particular reference to current advances. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have an opportunity for informal discussion with the visitors. Prereq: Physiol 810 or consent of instructor.

**718 Advanced Respiratory Physiology**, 2 cr. The course consists of an in-depth discussion of a selected area in respiratory physiology with particular reference to current advances. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have an opportunity for informal discussion with the visitors. Prereq: Physiol 810 or consent of instructor.

- 724 Advanced Neurophysiology**, 2 cr. The course consists of an in-depth discussion of a selected area in neurophysiology with particular reference to current advances. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have an opportunity for informal discussion with the visitors. Prereq: Consent of instructor.
- 726 Advanced Cell Physiology**, 2 cr. Current topics in cell biology with particular attention to relationships to medicine. Structure function correlations will be emphasized. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have opportunity for informal discussion with the visitors. Prereq: Consent of instructor.
- 728 Advanced Neuroendocrinology**, 2 cr. A discussion of the interaction between the brain and the glands whose secretion is controlled by the central nervous system. Areas to be covered include the homeostatic (feedback) regulation of pituitary secretion, neuroendocrine reflexes, rhythmic hormonal secretion, hormonal adaption to environmental change and effects of hormones on neural activity and behavior. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have an opportunity for informal discussion with the visitors. Prereq: Biochem 811, Physiol 810 or consent of instructor.
- 730 Advanced Renal Physiology**, 2 cr. The course will consist of an in-depth discussion of selected areas of renal physiology with particular reference to contemporary advances. The course includes two or three presentations by visiting faculty who are experts in the area. Students will also have an opportunity for informal discussion with the visitors. Prereq: Consent of instructor.

## PSYCHIATRY

**PROFESSORS** Frank J. Menolascino, M.D. 1957 Ne. (Interim Chairman), John A. Aita (Emeritus), M.D. 1937 Ia., Ph.D. 1944 Mn., George W. Bartholow, M.D. 1955 Ia., Merrill T. Eaton, M.D. 1944 In., Robert J. Ellingson, Ph.D. 1950 Northwestern, M.D. 1963 Ne., Robert L. Schalock, Ph.D. 1966 Wash., Theo B. Sonderegger, Ph.D. 1965 Ne., Robert S. Wigton (Emeritus), M.D. 1935 Ne., Cecil L. Wittson (Emeritus), M.D. 1941 S.C., Charles J. Golden, Ph.D. 1975 Hi., Joseph C. LaVoie, Ph.D. 1970 Wi., Fred D. Strider, Ph.D. 1961 UNL; **RESEARCH PROFESSORS** Michael J. Carver (Emeritus), Ph.D. 1952 Mo., John H. Copenhaver, Ph.D. 1963 Ks., Williamina A. Himwich (Emeritus), Ph.D. 1939 Ia. St.; **ASSOCIATE PROFESSORS** Jerry L. Authier, Ph.D. Portland, Reba Ann Benschoter, Ph.D. 1978 UNL, Kenneth K. Berry, Ph.D. 1964 Tx. Christian, Chung-Chou Chu, M.D. 1978 Korea, James A. Davis, Jr., M.D. 1968, Ne. John Y. Donaldson, M.D. 1966 Ne., Louise F. Eaton, M.D. 1945 In., Paul M. Fine, M.D. 1958 Syracuse, Alan J. Fix, Ph.D. 1970 SUNY at Buffalo, Marjorie J. Gedgoud, Ed.D. 1954 Co., Benjamin Graber, M.D. 1969 Mi., Ernest A. Haffke, M.D. 1962 Ne., David K. Kentsmith, M.D. 1965 Ne., William B. Long, M.D. 1952 Ne., George J. Lytton, M.D. 1943 Ne., John J. McGee, Ph.D. 1974 Ks., Stan L. Moore, M.D. 1975 Ne., William H. Reid, M.D. 1970 Mn., John W. Rohrbaugh, Ph.D. 1973 Il., Stephen L. Ruedrich, M.D. 1976 Oh. St., Jack A. Stark, Ph.D. 1973 UNL, Donald A. Swanson, M.B.B.C.H. 1966 Witwatersrand (So. Africa), George A. Young (Emeritus), M.D. 1936 Ne.; **ASSISTANT PROFESSORS** John D. Baldwin, M.D. 1955 Ne., Edward T. Beitenman, M.D. 1954 Creighton, Ronald L. Bendorf, M.D. 1962 Ne., Willard C. Brinegar, M.D. 1937 Ne., William J. Burke, M.D. 1980 Ne., Robert Calkins, M.D. 1949 Ne., Jane B. Dahlke, M.D. 1972 Ne., J. Lee Dyer, M.D. 1954 Ne., Jeanette Ettinger, M.D. 1946 Women's Med., Stephen Greenspan, Ph.S. U. of Rochester, Carl Greiner, M.D. 1978 U. Cincinnati, Kay Gustafson, Ph.D. 1975 Ma., Gary C. Gard, Ph.D. 1982 UNL, Klaus Hartmann, M.D. 1970 Ne., Howard D. Herrick, M.D. 1956 Ne., Kevin Hynes, Ph.D. 1976 Purdue, Robert D. Jones, M.D. 1951 Ne., Emmet M. Kenney, M.D. 1959 Creighton, Lawrence Kipperman, Ph.D. 1964 Mi., James K. Madison, Ph.D. 1983 Emory, Shirley A. Melcher, M.S.W. 1955 Wa., Michael J. Monfills, M.S.W. 1979 UNO, Elizabeth Patino, M.S.N. 1960 Co., Edward E. Pease, M.D. 1968 Illiff (Denver), Mary M. Quattrocchi, Ph.D. 1983 UNL, Charles H. Richardson, M.S.W. 1964 UNL, Mary C. Schroeder, M.S.W. 1966 Ks., Merle E. Sjogren, M.D. 1947 Ne., Mary A. Strider, Ph.D. 1982 UNL, Alexander Walker, M.D. 1977 U. Cincinnati, Gwen R. Weber-Burch, Ph.D. 1979 UNL, Clark Wieland, M.D. 1957 Ne., James E. Wilson, Pharm.D. 1979 Ne., James W. Wenger, M.D. 1960 Ne., William D. Wood, Ph.D. 1967 N.C., J. Lewis Yager, Ph.D. 1944 Chicago; **INSTRUCTORS** Paulo Bahr, M.D. 1972 Brazil, John R. Beerling, M.S.W. 1972 UNL, JoAnn Betts, M.S.W. 1976 UNO, James M. Burger, Ph.D. 1980 UNL, David M. Daughton, M.S. 1977 UNO, David L. Evans, M.A.T. 1973 Oakland, William E. Ford, Ph.D. 1974 Ma., Jewell Goodloe, B.S. 1946 Omaha U., Jack D. Hornby, M.D. 1974 Ne., Sally Lidie, M.S.W. 1974 UNO, William D. MacInnes, Ph.D. 1982 UNL, Paul E. Menousek, Ph.D. 1983 UNL, William R. Meyer, M.S.S.W. 1966 Mo., Arleen Michael, Ed.D. 1979 UNL, Mary Beth Muskin, M.D. 1978 Johns Hopkins, Shirley L. Pflug,

M.D. 1967 Ne., Somasundaram Rajendran, M.D. 1964 Madras (India), Jay Rich, M.D. 1976 N.D., Sarita Ruma, B.S. 1981 UNO, Janet A. Smith, M.O.T. 1977 Tx. Women's U., Priscilla Thralls, M.S.W. 1979 UNO, Robert Townsend, Ph.D. 1974 UNL, Fay E. Whitla, M.D. 1960 Ne., Jack F. Wisman, M.D. 1949 Tulane; **ASSISTANT INSTRUCTOR** Wilberta Yager, B.A. 1947 Co.

Courses are planned to give the student, commencing in his/her freshman year, correlated, progressive training in the anatomical, physiological, and psychological fundamentals of psychiatry.

Lectures and demonstrations in the freshman year emphasize the significance of behavioral sciences to the medical career. The sophomore program consists of lectures and case demonstrations in basic psychiatry, which include descriptive and dynamic psychopathology and techniques of examination. In the junior and senior years, stress is placed on supervised experience with psychiatric patients, on inpatient, day-patient, and outpatient basis. Formal lectures are kept to a minimum. Instruction in psychiatry is correlated with the teaching in other departments.

## PSYCHIATRY — 70

### 502 **Introduction to Psychiatry and the Behavioral Sciences** (2 s h cr Second Semester; 8 h weekly) Haffke, Strider, Ruedrich

This course is designed to give the student, via some understanding of the contributions of both behavioral and biological science, an appreciation of the development of man as a physiological, psychological entity, reacting to intrapersonal and interpersonal changes, and functioning in health and in illness within the context of family, society, and culture. It focuses on an understanding of the development of behavior in the context of both the normal and abnormal. Its objective is, while teaching the student some of the uses of basic psychiatric techniques in other branches of medicine, to help obliterate the "mind-body" dichotomy, thus giving the student the ability to deal with the patient as a "whole" person rather than a series of systems. It is organized under the headings: 1) human development; 2) biological and behavioral factors in human development and function; 3) man in his environment; and 4) psychological medicine and its role in modern society.

### 610 **Alcoholism and Drug Readings**, Haffke

Periods offered: By arrangement  
Student limit: By arrangement  
Semester hours: 4 per twelve weeks  
Prerequisite: Biochemistry 510

Lectures, demonstrations, seminars, and review of literature concerning alcoholism and drug addiction.

### 616 **Neurochemistry**, Copenhaver

Periods offered: By arrangement  
Student limit: By arrangement  
Semester hours: 4 per twelve weeks  
Prerequisite: Biochemistry 510

A basic course in the chemistry of the central nervous system. The material will cover aspects of the subcellular units, metabolica compartments, and the regional distribution of chemical components. Current literature will be reviewed by the student and presented as part of the course.

### 640 **Practicum Training in Clinical Psychology**, Strider

Periods offered: All semesters; 8 or 12 weeks, full or half-time  
Student limit: None  
Semester hours: By arrangement  
Prerequisite: Recommendation of major advisor and permission of instructor

Clinical experience working with patients under clinical supervision. Open to students other than medical students.

### 644 **Ambulatory Psychiatry**, Swanson

Periods offered: All semesters, 8 or 12 weeks, full or half-time  
Student limit: 2 per 8 weeks  
Semester hours: 4 per 8 weeks by arrangement  
Prerequisite: 70-705

Lectures, seminars, demonstrations in individual and group psychotherapy and psychopharmacology with adult outpatients.

### 646 **Developmental Problems of Children**, Menolascino

Periods offered: All semesters, 4, 8, or 12 weeks; full or half-time  
Student limit: By arrangement (total of 4 on service at any one time)  
Semester hours: 4 per 4 weeks (or by arrangement)  
Prerequisite: 70-705

Lectures, demonstrations and seminars. Clinical experience working with children, inpatients and outpatients, and their families. Experience with community agencies working with children.

**705 Required Psychiatry Clerkship, Ruedrich and Staff**

Periods offered: Each 8 weeks

Student limit: 30

Semester hours: 8

A full-time, eight-week required clinical clerkship is to be taken in the junior year. Students are assigned to instructors on a tutorial basis and under this detailed supervision are assigned patients on the adolescent service; adult inpatient service; adult outpatient service; children's service; liaison service; and the Veterans Administration Hospital psychiatry service. Although assigned to a specific service, a core-curriculum of lectures, seminars, and demonstrations of common psychiatric disorders provides each student with experiences on all services of the Nebraska Psychiatric Institute.

**721 Individualized Studies in Psychiatry, Ruedrich and Staff**

Periods offered: All semesters; 4, 8, or 12 weeks, full or half-time

Student limit: By arrangement

Semester hours: By arrangement

Demonstrations, seminars, readings and clinical experience in such areas as alcohol and drug problems, community psychiatry, mental retardation, hospital psychiatry (given at NPI and/or VA), and liaison psychiatry.

**726 Psychiatric Problems of Adolescents, Walker**

Periods offered: All semesters; 4, 8, or 12 weeks, full or half-time

Student limit: By arrangement

Semester hours: 4 per 4 weeks

Prerequisite: 70-705

Lectures, demonstrations, seminars on adolescent problems. Clinical experience working with adolescents and their families and with other community agencies concerned with adolescents.

**732 Group Process Seminars, Staff**

Periods offered: To be arranged

Student limit: 5-10

Semester hours: 1

The student will learn to identify and follow group process in a non-psychotherapy setting. The student will learn how to alter group process. The course will consist of eight weekly 90-minute meetings. Didactic material will be presented which describes the theoretical aspects of group dynamics. In a more practical sense, the meetings will include analysis of the group dynamics that occur within the course.

**734 Clinical Practice in Counseling of Sexual and Marital Problems, Graber**

Periods offered: All semesters; 8 weeks at half-time only

Student limit: By arrangement

Semester hours: 4 per 4 weeks

Prerequisite: 70-705

Clinical experience in treating individuals with sexual and/or marital problems.

**751 Developmental Psychology, Staff**

Periods offered: To be arranged

Student limit: By arrangement

Semester hours: 3

Prerequisite: 6 semester hours in Psychology or Education Psychology; open only to qualified students in the fields related to Psychiatry and approval of the instructor.

A background of knowledge of normal development from birth to old age as a sound basis for understanding maladaptive behaviors. Consideration of cultural, emotional, social, and intellectual factors throughout childhood; adolescent behavior and development; various aspects of adjustment in young adulthood, maturity and old age.

**752 Group Dynamics, Wood**

Periods offered: To be arranged

Student limit: By arrangement

Semester hours: 2

Prerequisite: Permission of instructor

Experiential and didactic methods are used to consider small groups, the relationship between them and the individual, and the relationship between small groups.

**753 Psychiatric Concepts, Haffke**

Periods offered: To be arranged  
Student limit: By arrangement  
Semester hours: 2  
Prerequisite: Permission of instructor

The purpose of this course is to explore human behavior, both ordered and disordered, via: (1) selected readings in modern literature as they represent psychiatric concepts, (2) synoptic presentations of descriptive and dynamic aspects of the major psychiatric disorders, and (3) a contemporary view of psychiatric treatment and management.

**754 Basic Psychodynamics, Strider**

Periods offered: To be arranged  
Student limit: By arrangement  
Semester hours: 2  
Prerequisite: Permission of instructor

A course designed to consider theories of personality development, psychopathology, and abnormal behavior. Psychiatric syndromes are reviewed with emphasis upon psychodynamics as related to symptom formation, contemporary psychotherapeutic methods and prognosis. Recent research findings are discussed. Patient demonstrations are presented to illustrate psychopathology, psychodynamics, and psychiatric syndromes.

**756 Community Psychiatry, Haffke**

Periods offered: To be arranged  
Student limit: By arrangement  
Semester hours: 2  
Prerequisite: Permission of instructor

A course in Community Psychiatry with special emphasis on consultative techniques, mental health education, the function of human management systems, and practices within the community, and the primary, secondary and tertiary aspects of mental illness prevention. The course will present material relevant to a wide spectrum of community mental health professions. Selected representative community agencies are visited.

**757 Psychiatric Literature, Staff**

Periods offered: To be arranged  
Student limit: By arrangement  
Semester hours: Credit arranged  
Prerequisite: Permission of instructor

Reading assignments in special areas; library reading and conferences.

**758 Clinical Child Psychiatry, Berry**

Periods offered: To be arranged  
Student limit: By arrangement  
Semester hours: 3  
Prerequisite: Permission of instructor

The general purpose of this survey course is for the student to become familiar with psychotherapeutic techniques aimed at enhancing the adjustment and maturity of children. The history, philosophy, methods of, and the research in, child psychotherapy are considered.

**760 Off-Campus Elective, Eaton and Ruedrich**

Periods offered: By arrangement  
Student limit: By arrangement  
Semester hours: 4  
Prerequisite: 70-705

An introduction to the practice of Psychiatry or its subspecialties. For training not available locally, may be transcultural elective taken outside the USA.

**772 Psychiatry Residency, Reid**

This includes clinical work with psychiatric patients, combined with the study of basic psychiatric sciences, medical and social psychology, psychopathology, psychotherapy, and the physiological and pharmacological therapies, including the basic knowledge, the form, function and pertinent pathology of the nervous system. The training program in general psychiatry is of four years' duration and is supervised by the faculty to develop competency and the utilization of such basic knowledge in dealing with patients.

**776 Internship in Clinical Psychology, Strider**

The internship program provides a diversified training experience in which the psychology intern is provided the opportunity to work with a wide range of patients, age groups, and clinical problems. Emphasis is also placed on intensive appraisal and understanding of clinical situations. The intern develops basic competence in

diagnostic interviewing, psychodiagnostic evaluation, and psychodynamic formulation with both children and adults. Experiences with several psychotherapeutic approaches with both children and adults is arranged with emphasis on careful case formulation as the basis for selection or variation of technique. Attention is given to the development of skills in inter-professional relations and community psychology. Opportunities for consultation with referral sources, including schools, other agencies and clinics, are arranged to provide the intern with experience in consultative situations.

**798 Research in Psychiatry**, Ellingson and Staff

Periods offered: All semester; 4, 8, or 12 weeks, full-time only

Student limit: By arrangement

Semester hours: 4

Laboratory of clinical research under direction in selected areas of psychiatry and/or behavioral sciences.

## RADIOLOGY

**PROFESSORS** Thomas J. Imray (Chairman), M.D. 1965 Marquette, Roger K. Harned, M.D. 1961 Va., Ernest O. Jones, Ph.D. 1964 No. Car. St., Pradeep Kumar, M.D. 1964 Andhra (India), Merton A. Quaife, M.D. 1957 Ne.; **ASSOCIATE PROFESSORS** Joseph C. Anderson, M.D. 1968 Ne., Wei-Kom Chu, Ph.D. 1977 OK., Charles A. Dobry, M.D. 1962 Ne., Francis J. Hahn, M.D. 1961 Yonsei (Korea), Herbert B. Saichek, M.D. 1943 Marquette, Susan M. Williams, M.D. 1973 Ne.; **ASSISTANT PROFESSORS** Gregory L. Hanson, M.D. 1972 Ne., Phoebe Kaplan, M.D. 1978 Ne., James J. Phalen, M.D. 1965 Creighton, Marilyn Sitorius, M.D. 1977 Ne.; **SENIOR CONSULTANT** Howard B. Hunt, M.D. 1927 Harvard.

The curriculum in Radiology relates the physical and biological principles of radiation effects to the basic sciences and to the diagnosis, prevention, and treatment of disease.

During the third year radiologic interpretation, nuclear medicine, and radiation therapy are offered as electives. Sectional teaching to groups of four to twelve students is conducted through film reading sessions, group conferences, and tumor clinics.

### RADIOLOGY—76

**720 Diagnostic Radiology**; Dr. Williams

Periods offered: Each 4 weeks — Except June and December

Student limit: 12 — University Hospital

Semester hours: 4

Daily sessions in film interpretation, fluoroscopic examination, special radiographic procedures, and correlation of radiographic anatomy, radiographic physiology, and radiographic pathology in the evaluation of human diseases are to be carried out in the Department of Radiology. In addition, there is an introduction to radiation therapy and nuclear medicine. Specialized areas such as pediatric radiology, cardiovascular radiology, ultrasound, neuroradiology, and GU radiology will be reviewed.

**Research Elective in Diagnostic Radiology, Radiation Therapy or Nuclear Medicine;**

Dr. Kumar

Periods offered: Each 4 weeks

Student limit: 3 per session

Semester hours: 4

By prior arrangement, the student shall pursue independent study under the direction of a faculty member. Opportunities exist for both clinical and basic research.

**722 Radiation Therapy**

Periods offered: Each 4 weeks (may be extended an additional 4 weeks by permission)

Student limit: 2 per section

Semester hours: 4

Cancer is relatively rare in the usual medical practice, although it ranks second as a cause of death. Since most patients with cancer at some time in the course of their disease will receive radiation therapy, this elective permits a concentrated exposure to the manifestations of malignant disease. The emphasis will be the evaluation of patients undergoing treatment with the various radiation therapy modalities. An attempt will be made, via discussion, of particular cases to correlate the roles of surgery, chemotherapy, and radiation therapy.

**724 Nuclear Medicine**, Quaife

Periods offered: Each 4 weeks

Student limit: 4 per section

Semester hours: 4

This elective is directed toward acquainting the student with the field of Nuclear Medicine. The application of nuclear energy to the diagnosis, treatment, and/or investigation of human disease is surveyed with emphasis on clinical applications. The

students receive didactic instruction in the principles and practice of pertinent nuclear physics and instrumentation, participate in case evaluation, procedure selection, radionuclide dose calculation and administration, conduction of the procedure, subsequent evaluation and analysis of data with interpretation and formulation of consultative report. Follow-up of patients with integration of the consultative report into the total patient care is stressed. Pertinent radiation biologic and radiation protection considerations are related to the conduct of the routine practice of nuclear medicine. Opportunity is available for the pursuit of individual interests within the overall framework of the elective.

#### 760 Off-Campus Elective

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

Clerkships in University or teaching hospitals elsewhere. By individual approval only. Clerkships in community hospitals must be preceded by an introductory course in a teaching hospital.

## SURGERY

**PROFESSORS** Layton F. Ridders (Chairman) M.D. 1970 Stanford, Francis F. Bartone, M.D. 1957 Jefferson, William H. Fleming, M.D. 1961 Columbia, Paul E. Hodgson, M.D. 1945 Mi., Henry Kammandel, M.D. 1942 Tufts, Leroy W. Lee (Emeritus), M.D. 1939 Ne., Edward M. Malashock, M.D. 1946 Ne.; William Malette, M.D. 1953 Wa. Univ. (St. Louis); **CLINICAL PROFESSOR** Richard W. Steenburg, M.D. 1948 Harvard; **ASSOCIATE PROFESSORS** Leon F. Davis, D.D.S. 1967 Ne., M.D. 1972 Ne., L. R. Schultz, M.D. 1955 Ne., Hal K. Mardis, M.D. 1958 Ne., **CLINICAL ASSOCIATE PROFESSORS** John D. Coe, M.D. 1944 Ne., John B. Davis, M.D. 1951 Ne., John B. Davis, M.D. 1951 Ne., Randolph M. Ferlic, M.D. 1961 Creighton, Daniel M. Miller, M.D. 1942 Creighton, Delbert D. Neis, M.D. 1945 Ks., Gerald R. Ott, D.D.S. 1958 Mn., John A. Rasmussen, M.D. 1943 Ne., Barney B. Rees, M.D. 1944 Ne., John W. Smith, M.D. 1956 Ne.; **ASSISTANT PROFESSORS** Betty L. Bryson, M.D. 1974 Ky., Charles F. Damico, M.D. 1968 Creighton, James A. Edney, M.D. 1980 Ne., Carl T. Frank, M.D. 1965 Ne., Thomas W. Heplerlen, M.D. 1968 Ne., Robert M. Kroeger, M.D. 1975 Ne., Earl K. Larson, Jr., M.D. 1964 Ne., David S. Marshall, D.D.S. 1965 Wa., Lary Robinson, M.D. 1972 Wash. Univ. (St. Louis) Jon F. Thompson, M.D. 1976 Co.; **CLINICAL ASSISTANT PROFESSORS** James Adwers, M.D. 1969 Ne., L. Dwight Cherry, M.D. 1945 Columbia, Robert W. Gillespie, M.D. 1950 Ne, Robert D. Harry, M.D. 1968 Ne., Thomas C. Howard, M.D. 1969 Yale, David A. Hughes, M.D. 1971 Baylor, Joel T. Johnson, M.D. 1961 Ne., F. William Karrer, M.D. 1956 Ne., Kenneth F. Kimball, M.D. 1948 Ne., Terrance L. Kullbom, D.D.S. 1966 Ia., Benton Kutler, D.D.S. 1945 Creighton, John F. Latenser, M.D. 1946 Ne., Robert D. Lynch, M.D. 1963 Ne., Burdette J. Moor, M.D. 1961 Ne., Donald R. Owen, M.D. 1971 Ne., James F. Panzer, M.D. 1965 Ne., John W. Porter, M.D. 1954 Ne., Gary L. Quast, D.D.S. 1964 Ia., Hans Rath, M.D. 1952 Ne., Carl W. Sasse, Jr., M.D. 1958 Ne., Stewart E. Sloan, M.D. 1973 Ne., Robert L. Smith, D.D.S. 1962 Ne., Richard M. Tempero, D.D.S. 1971 Creighton, Chester G. Thompson, Jr., M.D. 1964 Ne., Harold Tu, D.M.S. 1977 Oregon, M.D. 1979 Ne., Thomas H. Wallace, M.D. 1959 Ne., Robert H. Westfall, M.D. 1955 Ne., Eugene M. Zweiback, M.D. 1963 Columbia; **CLINICAL INSTRUCTORS** Dale E. Brett, M.D. 1958 Ok., Karl W. Bruce, D.D.S. 1940 Ne., Mark Christensen, M.D. 1978 Ne., Paul Collicott, M.D. 1966 Ne., Raymond W. Conant, M.D. 1974 Creighton, Robert W. Ehrlich, M.D. 1947 Ne., Louis E. Hanisch, M.D. 1945 Ne., M. Belayet Hussain, 1972 Cittagong (Bangladesh), William G. LeWorthy, M.D. 1945 Temple, Chester Paul, M.D. 1969 Ne., Scott G. Rose, M.D. 1979 Ne., Eugene Walte, M.D. 1978 Ne., John G. Wiedman, M.D. 1944 Ne.; **SENIOR CONSULTANTS** Albert S. Black, M.D. 1940 Chicago, John Brush, M.D. 1943 Ne., Robert M. Cochran, M.D. 1940 Ne., Charles W. McLaughlin, Jr., M.D. 1929 Wa., Wilbur A. Muehlig, M.D. 1935 Mi.; **EMERITUS** Merle M. Musselman, M.D. 1939 Ne., Chester Singer, Jr. M.S.D. 1960 Mo., Samuel A. Swenson, Jr. M.D. 1941 Ne.

The Department of Surgery includes sections of general surgery oral surgery, pediatric surgery, plastic surgery, cardiothoracic surgery and urology.

The surgical faculty participates with other departments in interdepartmental exercises during the first two years. The purpose is to correlate the knowledge and precepts of pre-clinical sciences with the problems displayed in patients with surgical diseases.

The Department of Surgery offers courses for students in clinical science semesters. A primary clerkship has been designed to present the principles of recognition, diagnosis, and care of surgical disease. Students are incorporated into the activities of the surgical team. After this clerkship, students may add to their breadth and depth of understanding of surgical disease by selecting electives in a variety of special areas in the Department of Surgery or in other surgical areas.

## **SURGERY—80**

- 705 Primary Clerkship; Dr. Ridders**  
Periods offered: Every 8 weeks  
Student limit: 25  
Semester hours: 8

Students examine and evaluate surgical patients and participate actively in their care during the course of an illness. They apply and evaluate diagnostic procedures, consider differential diagnosis and observe the consequences of therapeutic decisions. This study is enhanced by conferences, rounds, teaching packages, and demonstrations by the faculty. Essential elements of surgical knowledge and skills have been identified. The students participate in operations, learning principles, and techniques of operations and are actively involved in the care of patients who do not require hospitalization.

## **ELECTIVES**

In the evolution of surgery, a number of body regions of systems have become the focus for special attention leading to separation of the broad field into special areas. The core of surgery is still the understanding of cell, organ and system function, and response to injury. A student aspiring to a career in any field of medical practice can feel confident that electing any learning experience in which patients are accessible and in which exchange with faculty is possible will contribute to his/her effectiveness as a physician. The Department of Surgery includes several areas of special interest: general surgery, oral surgery, pediatric surgery, plastic surgery, and cardiothoracic surgery.

- 722 Elective Pediatric Surgery Clerkship**  
Periods offered: Each 4 weeks  
Student limit: 1  
Semester hours: 4  
Childrens Memorial Hospital.
- 724 Elective Cardiothoracic Surgery Clerkship; Staff**  
Periods offered: Each 4 weeks  
Student limit: 4  
Semester hours: 4
- 728 Elective General Surgery Clerkship**  
Periods offered: Each 4 weeks  
Student limit: 5  
Semester hours: 4

Designed to build on the foundation achieved in the primary clerkship. The student is an active participant in the professional team caring for patients. Students can expect to acquire confidence in identifying problems, organizing a plan of approach, and conducting patients through the pre-operative and post-operative periods in conjunction with the faculty at affiliated hospitals.

## **SPECIAL OFF-CAMPUS ELECTIVE—**

Special interests of well-developed career goals may lead a student to favor a special course or experience within or away from the Medical Center. In consultation with, and under the auspices of a member of the faculty, special arrangements can be made. Permission for this period will be contingent upon designing a supervised educational opportunity.

- 760 Off-Campus Surgery Elective**  
Periods offered: Each 4 weeks  
Student limit: By arrangement  
Semester hours: 4
- 766 Preceptorial Surgery Elective**  
Periods offered: Each 4 weeks  
Student limit: By arrangement  
Semester hours: 4

Many members of the active faculty have indicated their willingness to share a preceptorial clerkship with a student. The list of faculty is maintained in the Department of Surgery. This involvement with surgeons of our faculty in an active practice in Council Bluffs, Ia., and Beatrice, Gordon, Lexington, Lincoln, and Kearney, Ne., can be arranged with the member of the faculty selected and certified by the Department of Surgery. Bear in mind that each member of the faculty will set his own individual student limit.

## **RESEARCH ELECTIVES—**

Length of approved time to be determined. In general, this type of experience is favored for a student who has identified a research problem for which capacity and facilities exist to permit a fruitful period of study and effort.

### **772 Surgery Residency**

This is a five-year clinical program after graduation from medical school during which knowledge, skills, and judgment are acquired in the management of patients with surgical diseases. This is a progressive educational experience with gradually increasing responsibility. Broad interest includes the prevention and cure of disease and the care and rehabilitation of patients. Broad clinical experience includes anesthesia, general surgery, neurosurgery, pediatric surgery, plastic surgery, thoracic-cardiac surgery, as well as electives to satisfy Board requirements in General Surgery.

### **776 Oral Surgery Residency**

The advanced educational program in Oral Surgery comprises five years. This is a joint program offered by the University of Nebraska Colleges of Medicine and Dentistry. The student will enter as a first-year oral surgery resident during which time he will initiate his oral surgery training, audit certain medical school courses, and take the MSKP examination in June. Towards the end of the first year, he will apply for admission to the College of Medicine as a special student with advanced standing. It should be noted that the Medical College Admissions Test is a requirement of all applicants. If accepted, he will complete the medical school curriculum (a minimum of two years or four semesters). Upon satisfactory completion of the above, the resident will be eligible for examination by the American Board of Oral Surgery and granted an oral surgery certificate, a medical degree and a certificate of first-year general surgical training. Clinical experience is gained in outpatient and inpatient management of oral diseases, injuries and/or other abnormalities. Increasing responsibilities are assumed as the educational experience dictates. Additional experience is provided in oral and general pathology, general surgery, general anesthesia, maxillo-facial radiology and research.

### **SURGERY, GENERAL EXERCISES—**

#### **Surgery Grand Rounds (Saturday A.M.)**

Presentation and analysis of clinical problems. Faculty, house officers, and students.

#### **Surgery Seminar (Thursday, 7:00 A.M.)**

Presentation and discussion of subjects and articles related to surgery. Faculty, house officers, and students.

## **UROLOGY (Division of Surgery)**

The fundamental principles of urology, including the diagnosis and treatment of urinary infections, urologic management of genito-urinary trauma and congenital anomalies, malignancies and intersex problems, are taught so that the general physicians will be able to recognize these problems and treat those that are within his/her scope.

This is accomplished by a continual year-long series of seminars, bedside rounds, outpatient and operating room demonstrations, and combined conference in genitourinary radiology, pathology and pediatric urology.

Aside from the undergraduate teaching, the members of this division provide instruction to residents and nurses. They also provide urological care to patients at the University Hospital, Veterans Administration Hospital, Omaha, Bishop Clarkson, Methodist, and Immanuel Hospitals. They conduct investigative research in various subjects of urological interest.

### **UROLOGY—84**

#### **720 Hospital Clerkship; Dr. Bartone**

Periods offered: Each 4 weeks

Student limit: 5

Semester hours: 4

Students may select a one-month period of urology. They are assigned to the University Hospital or one of the affiliated hospitals. Special emphasis is devoted to principles of diagnosis and treatment especially pertinent to urology. Students participate in operations including transurethral surgery, and attempts are made to correlate operative findings with radiologic and pathologic findings. Students should make requests for hospital assignments through Mrs. Pat Zirkelbach at ext. 4292.

#### **760 Off-Campus Elective**

Periods offered: Each 4 weeks

Student limit: By arrangement

Semester hours: 4

By special permission with Professor Bartone, arrangements can be made for off-campus electives.

## **Residency Program**

The graduate training program in genito-urinary surgery is designed to meet the current requirements of the American Board of Urology. The aim is to expose the resident to all phases of urology. This is to include urologic diagnosis including endoscopy and retrograde pyleography, pre- and post-operative management, and to be assured that he has performed a sufficient number and variety of surgical procedures, including endoscopic operations, to become a competent surgeon.

### **772 Urology Core Residency**

A full-time, two-year program of clinical assignments utilizing the patient material and the faculty working at the Methodist, Omaha V.A. Medical Center, and the University of Nebraska Medical Center hospital. Background in the physiology, radiology, and pathology of the kidney and urinary tract are taught in a series of seminars and conferences in conjunction with the facilities of these respective hospitals. Pediatric seminars emphasizing this aspect of urology are taught in conjunction with the Department of Pediatrics.

### **774 Urology Chief Residency**

A year-long, full-time clinical program with assignments at the Veterans Administration Hospital, Omaha. The Chief resident is given clinical responsibility for both diagnostic and operative urology under faculty supervision.

### **799 Research in Urology**

Prerequisite: Special Permission

The student may elect to spend a period with Professor Bartone in laboratory or clinical research.

This bulletin provides information about the educational programs offered through the University of Nebraska Medical Center's College of Medicine. The UNMC faculty, the administration and the University of Nebraska Board of Regents have authorized statements presented in this bulletin as indicating current requirements; practices and procedures for application for admission to the College and the Medical Center; admission requirements; course offerings; requirements for graduation; tuition and fees; and costs for education.

Acceptance of registration by the University of Nebraska and admission to any educational program of the University does not constitute a contract or warranty that the University will continue indefinitely to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out, or discontinue any program.

The listing of courses contained in any University bulletin, catalog or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to (1) add or delete courses from its offerings, (2) change times or locations of courses or programs, (3) change academic calendars without notice, (4) cancel any course for insufficient registrations, or (5) revise or change rules, charges, fees, schedules, courses, requirements for degree and any other policy or regulation affecting students, including, but not limited to, evaluation standards, whenever the same is considered to be in the best interests of the University.

In accordance with University policy, UNMC prohibits the denial of admission or of Medical Center privileges to students or applicants on the basis of race, color, sex, national origin, age, handicap or religious or political beliefs. These privileges include but are not limited to admission, class assignments, scholarships, fellowships, assistantships, and financial aid, as well as housing and recreational facilities. Furthermore, student organizations must base their selection of students for membership on criteria which will not include race, color, religion, sex, national origin, age or handicap.

Admittance to UNMC programs will not be denied to otherwise qualified handicapped individuals solely by reason of their handicap. Qualified handicapped persons are those who meet the academic and technical standards required for participation in the specific educational program. Technical standards for the College of Medicine are provided in the section in admission.

In summary, UNMC policies are in accord with:

Title VI of the Civil Rights Act of 1964

Title IX of the Educational Amendments of 1972

Sections 503 and 504 of the Rehabilitation Act of 1973

Sections 799A and 854 of the Public Health Services Act

UNMC has an Affirmative Action Officer who works closely with the Office of Student Services to insure that these policies are supported on campus.

The University of Nebraska Medical Center reaffirms its position that an equitable and responsible environment must be maintained for all of its employees and students. Such an environment includes the right of individuals to discharge their respective responsibilities free from unsolicited and unwelcome sexual overtures by any employee (whether that employee serves in a supervisory, co-worker or instructional capacity). Therefore, it is the policy of the Medical Center that sexual harassment will not be condoned, and that prompt and appropriate corrective action will be taken against any employee found to be in violation of this policy. Prompt and appropriate corrective action will likewise be taken in instances of irresponsible, false accusation of sexual harassment.

In addition to individual College bulletins, the following publications offer pertinent information for students:

- “UNMC: A Place to Learn” — a general introduction to the University of Nebraska Medical Center
- “UNMC Student Handbook” — a reference guide to student life at the Medical Center
- “Student Consumer Information Handbook” — a reference guide to scholarships and financial aid
- “Bylaws of the Board of Regents” — A University governance document of the University of Nebraska”

These may be obtained through the Office of Public Affairs.

