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**BULLETIN**  
**OF**  
**WASHINGTON UNIVERSITY**  
**ST. LOUIS**



**THIRTY-SECOND ANNUAL**  
**CATALOGUE**  
**OF**  
**THE SCHOOL OF MEDICINE**

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**FEBRUARY, 1921**

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**PUBLICATIONS OF WASHINGTON UNIVERSITY**  
**SERIES II    VOLUME XIX    NUMBER IV**

## PUBLICATIONS OF WASHINGTON UNIVERSITY

**Series I. THE WASHINGTON UNIVERSITY RECORD.** This series is issued in four numbers—October, December, February, and April—and is intended for the entire University constituency: faculties, alumni, students, and friends of the institution generally. It contains a résumé of the principal activities of the University for the period covered, and announcements of important future events. The numbers also contain, occasionally, articles of an untechnical character on literary, scientific, or educational subjects. One issue (Annual Review) embodies a full review of the academic year, with the Chancellor's Report, abstracts of University legislation, a list of the writings of members of the Faculties, and other matters of University interest. The Record will be mailed regularly, upon request, free of charge.

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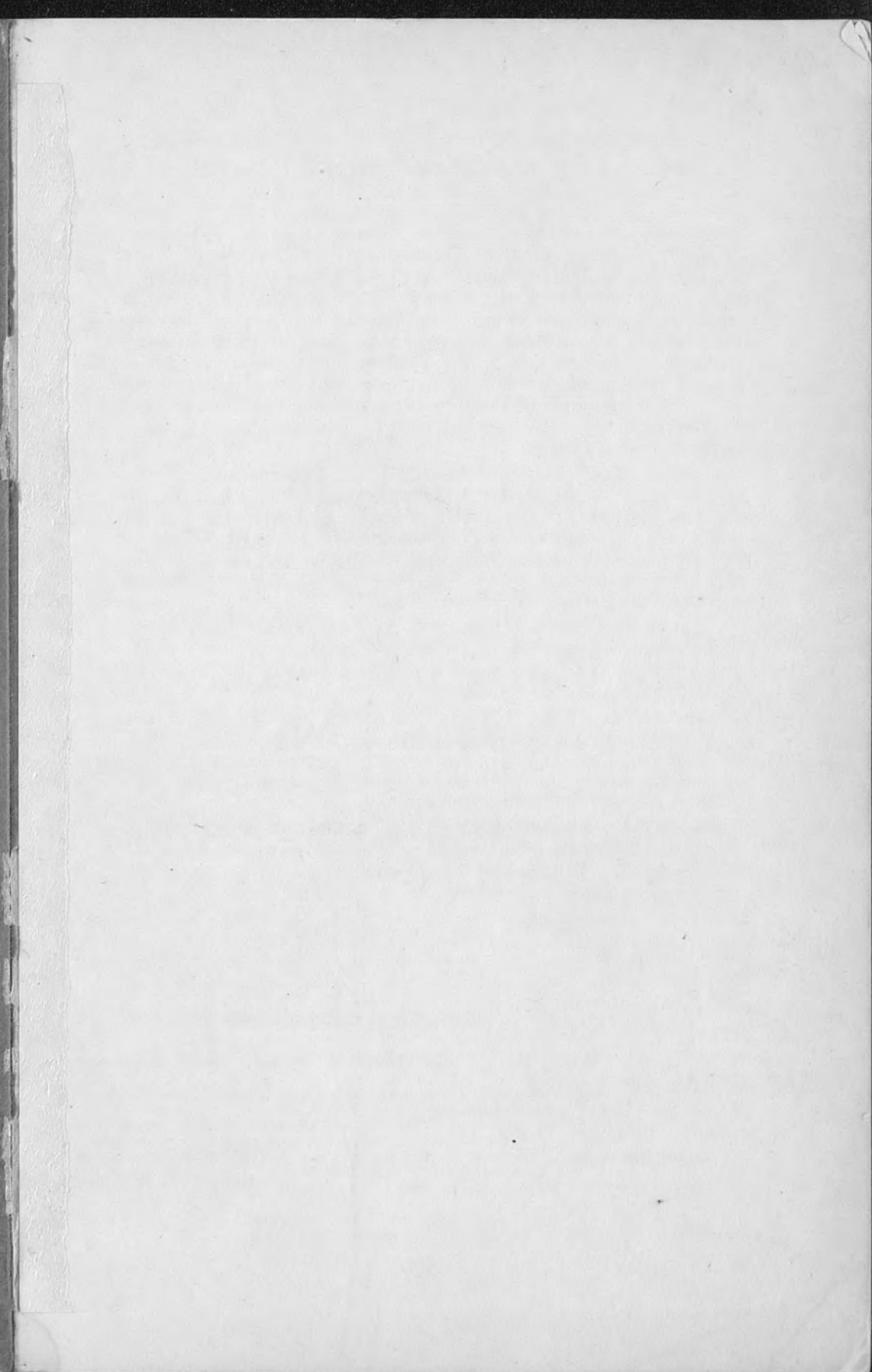
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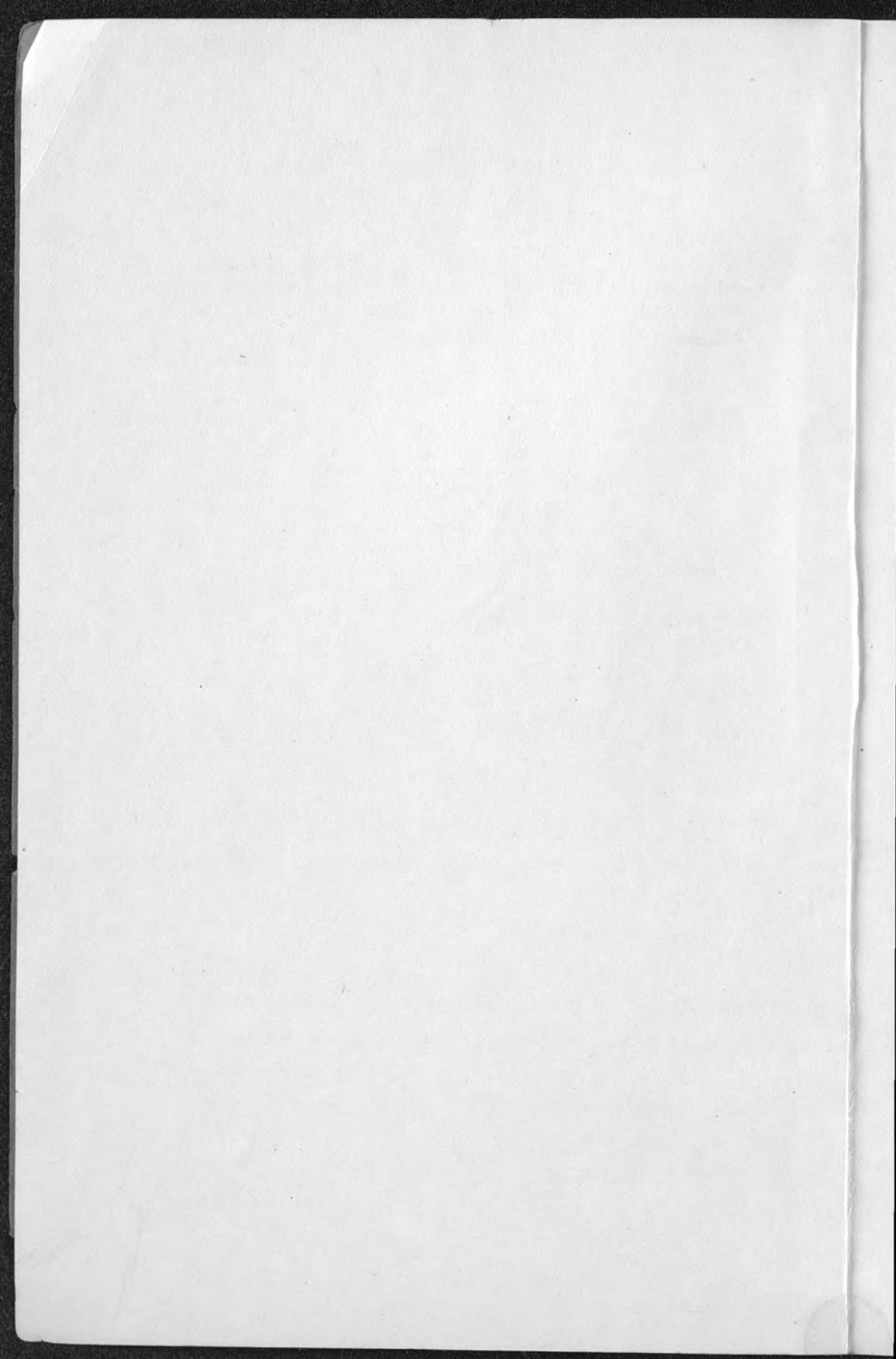
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BULLETIN  
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THIRTY-SECOND ANNUAL  
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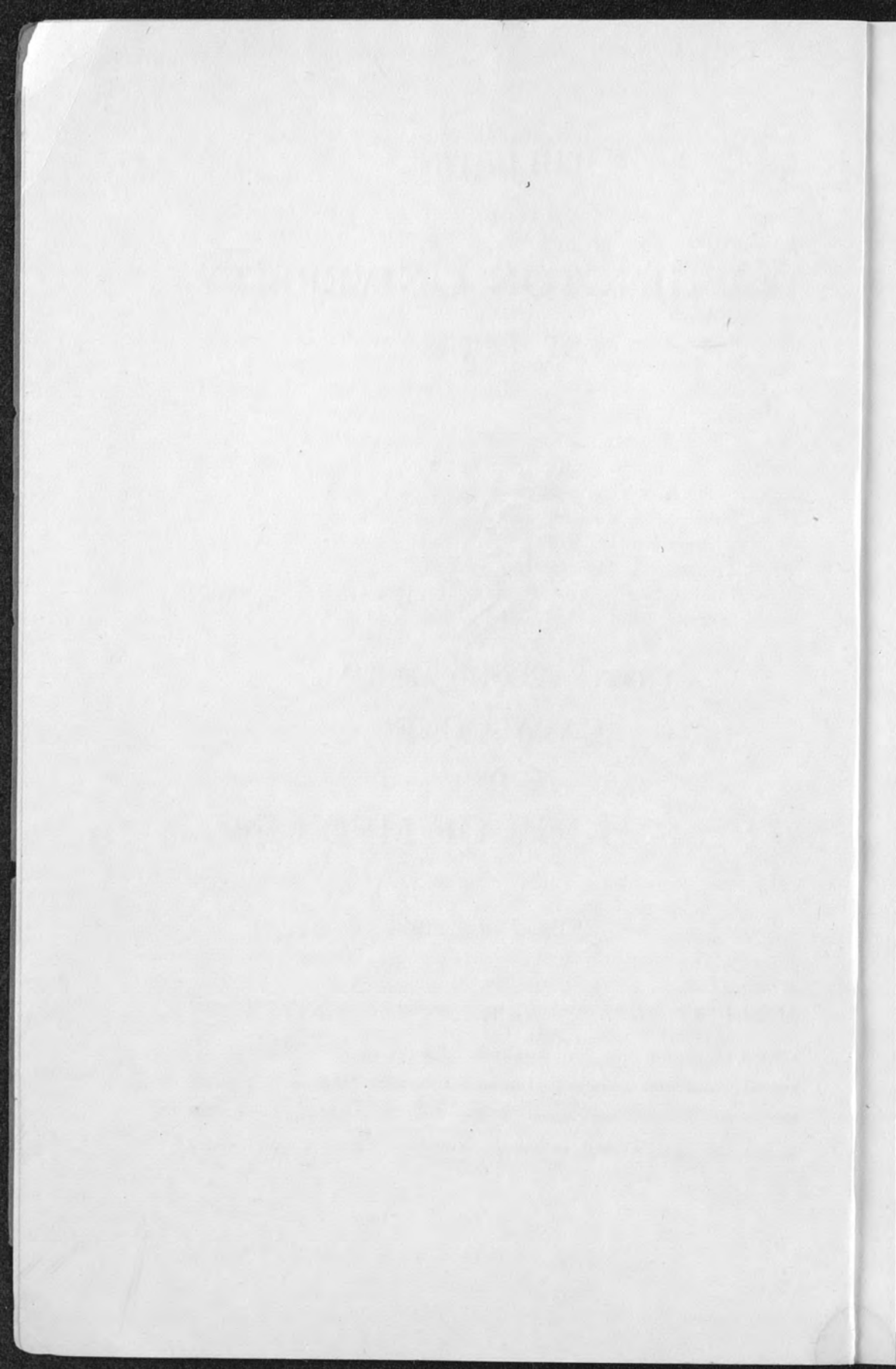
FEBRUARY, 1921

PUBLICATIONS OF WASHINGTON UNIVERSITY  
SERIES II                      VOLUME XIX                      NUMBER IV

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## CALENDAR

### 1920-21

Examinations for Advanced Standing and Removal of Conditions,  
Monday, Tuesday, and Wednesday, September 20, 21, and  
22, 1920.

Academic Year (First Trimester) begins Thursday, September  
23, 1920.

Holiday, Thanksgiving Day, Thursday, November 25, 1920.

First Trimester ends Wednesday, December 22, 1920.

Christmas Recess, Thursday, December 23, 1920, to Monday,  
January 3, 1921, inclusive.

Second Trimester begins Tuesday, January 4, 1921.

Holiday, Washington's Birthday, Tuesday, February 22, 1921.

Second Trimester ends Saturday, March 12, 1921.

Third Trimester begins Monday, March 14, 1921.

Holiday, Good Friday, March 25, and Saturday, March 26, 1921.

Third Trimester ends Saturday, May 28, 1921.

Final Examinations begin Monday, May 30, 1921.

Commencement, Thursday, June 9, 1921.

### 1921-22

Examinations for Advanced Standing and Removal of Conditions,  
Monday, Tuesday, and Wednesday, September 19, 20, and  
21, 1921.

Academic Year (First Trimester) begins Thursday, September  
22, 1921.

Holiday, Thanksgiving Day, Thursday, November 24, 1921.

First Trimester ends Thursday, December 22, 1921.

Christmas Recess, Friday, December 23, 1921, to Tuesday, Jan-  
uary 3, 1922, inclusive.

Second Trimester begins Wednesday, January 4, 1922.

Holiday, Washington's Birthday, Wednesday, February 22, 1922.

Second Trimester ends Saturday, March 11, 1922.

Third Trimester begins Monday, March 13, 1922.

Holiday, Good Friday, April 14, and Saturday, April 15, 1922.

Third Trimester ends Saturday, May 27, 1922.

Final Examinations begin Monday, May 29, 1922.

Commencement, Thursday, June 8, 1922.

# CALENDAR

1921

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31					29	30	31					29	30	31					29	30	31				

1922

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31					29	30	31					29	30	31					29	30	31				

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5370 Pershing Avenue

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M.D., University of Virginia, 1875. Professor of Diseases of Children and Clinical Midwifery, Missouri Medical College, 1891-99, and Washington University Medical School, 1899-1909. Member of the Medical Staff of Bethesda Hospital, and St. Louis Maternity Hospital.

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4 N. Kingshighway Boulevard

JOSEPH ERLANGER, M.D. . . . . *Professor of Physiology*

B.S., University of California, 1895; M.D., Johns Hopkins University, 1899; Resident House Officer, Johns Hopkins Hospital, 1899-1900. Fellow in Pathology, Assistant, Instructor, Associate, and Associate Professor of Physiology, Johns Hopkins University, 1900-06; Professor of Physiology, University of Wisconsin, 1906-10. *Physiologist to the Barnes Hospital.*

5127 Waterman Avenue

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A.B., Johns Hopkins University, 1893, and M.D., 1897; Resident House Officer, Johns Hopkins Hospital, 1897-98, and Assistant Resident Pathologist, 1900-02. Fellow, Assistant, Instructor, and Associate in Pathology, Johns Hopkins Medical School, 1897-1904; Associate and Member of the Rockefeller Institute for Medical Research, New York, 1904-10; Pathologist to the Presbyterian Hospital of New York, 1907-10. Dean, Washington University Medical School, 1912-15. *Pathologist to the Barnes Hospital and the St. Louis Children's Hospital.*

5102 Westminster Place

PHILIP ANDERSON SHAFFER, Ph.D. *Professor of Biological Chemistry*

A.B., West Virginia University, 1900; Ph.D., Harvard University, 1904.

Resident Assistant Pathological Chemist, McLean Hospital, Waverley, Mass., 1900-03; Assistant, Fellow, and Instructor in Chemical Pathology, Cornell University, 1904-10; Chemist to Huntington Fund for Cancer Research, 1906-10; Pathological Chemist and Head of Chemical Section of the Laboratory of Bellevue Hospital, 1909-10. Dean, Washington University School of Medicine, 1915-19. *Chemist to the Barnes Hospital.*

5466 Clemens Avenue

ROBERT JAMES TERRY, M.D. . . . . *Professor of Anatomy*

M.D., Missouri Medical College, 1895; A.B., Washington University, 1901; Interne, St. Louis Female Hospital, 1896. Demonstrator in Anatomy, Missouri Medical College, 1896-99; Assistant Professor and Professor of Anatomy, Washington University, 1899-1901; Austin Teaching Fellow in Histology and Embryology, Harvard University, 1906-07. Editor of the Bulletin of Washington University School of Medicine.

5315 Delmar Avenue

LEO LOEB, M.D. . . . . *Professor of Comparative Pathology*

M.D., Zurich, 1896. Adjunct Professor of Pathology, College of Physicians and Surgeons, Chicago, 1900-01; Experimental Pathologist, New York State Pathological Laboratory, 1902; Research Fellow, McGill University, 1903; Demonstrator, 1903-04, and Assistant Professor of Experimental Pathology in Charge of Laboratory, 1904-10, University of Pennsylvania; Director Department of Pathology, Barnard Free Skin and Cancer Hospital, St. Louis, 1910-15.

719 Westgate Avenue

WILLIAMS McKIM MARRIOTT, M.D. . . . . *Professor of Pediatrics*

B.S., University of North Carolina, 1904; M.D., Cornell University, 1910. Assistant in Chemistry, University of North Carolina, 1903-04; Assistant in Bio-chemistry, Cornell University Medical School, 1904-06; Instructor in Biological Chemistry, Washington University Medical School, 1910-14; Instructor and Associate in Pediatrics, Johns Hopkins University, 1914-17; Associate Pediatrician, the Johns Hopkins Hospital, 1915-17. *Physician in Chief to the St. Louis Children's Hospital, Pediatrician in Chief to the Washington University Dispensary, and Consulting Physician, St. Louis City Hospital and Infectious Disease Hospital.*

4763 Westminster place

EVARTS AMBROSE GRAHAM, M.D. . . . . *Professor of Surgery*

A.B., Princeton University, 1904; M.D., Rush Medical College, 1907; Interne, Presbyterian Hospital, Chicago, 1907-08. Fellow in Pathology,

Rush Medical College, 1906-07; Fellow, Assistant, and Instructor in Surgery, Rush Medical College, 1908-19; Member of Staff of O. S. A. Sprague Memorial Institute for Clinical Research, Chicago, 1912-15. *Surgeon in Chief to the Barnes Hospital, the St. Louis Children's Hospital, and the Washington University Dispensary, and Consulting Surgeon, St. Louis City Hospital.*

4906 Argyle Avenue

ELI KENNERLY MARSHALL, JR., PH.D., M.D. *Professor of Pharmacology*

B.S., College of Charleston, 1908; Ph.D., Johns Hopkins University, 1911, and M.D., 1917. Assistant and Associate in Physiological Chemistry, 1911-14, and Associate in and Associate Professor of Pharmacology, Johns Hopkins University, 1914-19.

10 N. Taylor Avenue

LOUIS HERBERT BURLINGHAM, M.D. *Lecturer on Hospital Administration*

A.B., Yale University, 1902; M.D., Johns Hopkins University, 1906; Interne, Massachusetts General Hospital, 1906-07. Assistant Resident Physician and Assistant Administrator, Massachusetts General Hospital, 1907-12; Assistant Superintendent, Peter Bent Brigham Hospital, 1912-17. *Superintendent of the Barnes Hospital and Administrator of the St. Louis Children's Hospital.*

Barnes Hospital

WILFRED HAMILTON MANWARING, M.D. . . . *Lecturer on Pathology*

B.S., University of Michigan, 1895; M.D., Johns Hopkins University, 1904. Instructor in Physiology, State Normal School, Winona, Minn., 1898-1901; Fellow and Assistant in Pathology, University of Chicago, 1904-05; Associate Professor of Pathology, Indiana University, 1905-07; Traveling Fellow, Rockefeller Institute, 1907-08; Assistant in Pathology and Bacteriology, 1910-13; Research Worker, Berlin, 1907-08; Pathological Institute, Leipzig and Frankfort-on-Main, 1908-09; Physiological Institute, London, and Lister Institute of Preventive Medicine, London, 1909-10; Professor of Bacteriology and Immunology, Leland Stanford Junior University, 1913-.

6028 McPherson Avenue

CHARLES HASKELL DANFORTH, PH.D. . . . . *Associate Professor of Anatomy*

A.B., Tufts College, 1908, and A.M., 1910; Ph.D., Washington University,

1912. Olmstead Fellow in Biology, 1908, and Instructor in Biology, 1910-11, Tufts College; Teaching Fellow in Anatomy, Harvard Medical School, 1910-11; Instructor and Associate in Anatomy, Washington University Medical School, 1908-16.

Euclid Avenue and Kingshighway

PHILIP CHARLES JEANS, M.D. . . . *Associate Professor of Pediatrics*

A.B., University of Kansas, 1904; M.D., Johns Hopkins University, 1909; Interne, Garrett Hospital for Children, Baltimore, Hartford Hospital, Hartford, and Children's Hospital, Floating Hospital, and City Hospital, Boston, 1909-12. Resident Physician, St. Louis Children's Hospital, 1912-13. Student Instructor in Chemistry, University of Kansas, 1902-04; Assistant, Instructor, and Associate in Pediatrics, Washington University Medical School, 1913-17. *Associate Physician to the St. Louis Children's Hospital; Chief of the Pediatric Clinic, Washington University Dispensary, and Visiting Physician, Infectious Disease Hospital.*

St. Louis Children's Hospital

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18 N. Taylor Avenue

JEAN VALJEAN COOKE, M.D. . . . *Associate Professor of Pediatrics*

A.B., University of West Virginia, 1903, and Yale University, 1904; M.D., Johns Hopkins University, 1908; Resident Pathologist, Pennsylvania Hospital, 1910-11. Instructor in Pathology, University and Bellevue Hospital Medical College, 1908-10, and Tulane University, 1911-12; Assistant Professor of Pathology, University of California, 1912-17; Associate in Pediatrics, Washington University School of Medicine, 1918-20. *Assistant Physician to the St. Louis Children's Hospital, and Physician to Out Patients, Washington University Dispensary.*

4418 Forest Park Boulevard

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HERBERT SPENCER GASSER, M.D. . . . . *Associate Professor of Physiology*

A.B., University of Wisconsin, 1910, and A.M., 1911; M.D., Johns Hopkins University, 1915. Instructor in Physiology, 1911-13, and in Pharmacology, 1915-16, University of Wisconsin. Instructor and Associate in Physiology, Washington University School of Medicine, 1916-20.

5246 Waterman Avenue

ALFRED CONRAD KOLLS, M.D. . . . . *Associate Professor of Pharmacology*

B.S., University of Wisconsin, 1914, and M.S., 1915; M.D., Johns Hopkins University, 1917. Assistant in Pharmacology and Toxicology, University of Wisconsin, 1913-15; Assistant in Pharmacology, Johns Hopkins University, 1917-18.

1606 Bellevue Avenue, Richmond Heights

FRANK ADAM MCJUNKIN, M.D. *Associate Professor of Pathology*

M.D., University of Michigan, 1906, and A.M., 1912; Interne, University Hospital, Ann Arbor, Mich., 1906-07. Assistant in Pathology, New York Post-Graduate Hospital, 1907-08; Instructor in Bacteriology, University of Michigan, 1908-09; Professor of Pathology and Bacteriology, University of Utah, 1909-11; Assistant in Pathological Laboratory, Boston City Hospital, 1912-14; Professor of Pathology, Marquette University School of Medicine, 1914-20. *Associate Pathologist to the Barnes and St. Louis Children's Hospitals.*

1650 South Spring Avenue

ALAN MASON CHESNEY, M.D. . . . . *Associate in Medicine*

A.B., Johns Hopkins University, 1908; M.D., 1912; Interne and Assistant Resident Physician, Johns Hopkins Hospital, 1912-14; Assistant Resident, Rockefeller Institute Hospital, New York, 1914-17. Assistant in Medicine, Johns Hopkins University, 1913-14. *Assistant Physician to Barnes Hospital.*

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A.B. (Hons.), Cambridge University, 1909; A.M., Harvard University, 1917. Master of Science and Mathematics, St. John's, N. F., 1909-11;

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\* Resigned January 1, 1921.



Tutor in Biology, Columbia College, New Westminster, B. C., 1911-13; Assistant Professor in Biology, University of Montana, 1914-17; Teaching Fellow in Zoölogy and Assistant in Botany, Harvard University, 1917-19.

1650 S. Thirty-ninth Street

FREDERICK EBERSON, Ph.D. . . . . *Associate in Dermatology*

B.Sc., College of the City of New York, 1912; A.M., Columbia University, 1914; Sc.M., Iowa State College, 1915; Ph.D., Columbia University, 1916. Research Assistant, Bacteriology, Sanitary Science and Public Health, Massachusetts Institute of Technology; Research and Teaching Fellow in Bacteriology, Iowa State College, 1914-15; Research Bacteriologist, Manchurian Plague Service, Harbin, China, 1916-17; Assistant, Department of Pathology and Bacteriology, Rockefeller Institute for Medical Research, 1917-18.

4926 Forest Park Boulevard

SHERWOOD MOORE, M.D. . . . . *Associate in Surgery (Radiology)*

M.D., Washington University, 1905; Interne, St. Louis City Hospital, 1905-06; Resident, Washington University Hospital, 1906-07. Instructor in Obstetrics, Washington University Medical School, 1907-09; Assistant in Surgery, St. Louis Children's Hospital, 1910-13; House Physician, Massachusetts General Hospital, X-ray Department, 1916-17. *Roentgenologist in Charge of the Actinographic Laboratory, Barnes Hospital.*

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A.B., Williams College, 1910; M.D., Johns Hopkins University, 1915; Interne and Assistant Resident Physician, Johns Hopkins Hospital, 1915-17. Instructor in Pediatrics, Washington University School of Medicine, 1917-20. *Assistant Physician to the St. Louis Children's Hospital, and Physician to Out Patients, Washington University Dispensary.*

St. Louis Children's Hospital

EDWARD ADELBERT DOISY, Ph.D. . . . . *Associate in Biological Chemistry*

A.B., University of Illinois, 1914, and M.S., 1915; Ph.D., Harvard University, 1920. Assistant in Biological Chemistry, Harvard Medical School, 1915-17.

4903 Forest Park Boulevard

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HOWARD HOMER BELL, M.D. . . . . *Associate in Bacteriology*

M.D., University of Pennsylvania, 1912; Interne, Harrisburg General Hospital, 1912-13. Assistant in Pathology and Bacteriology, University of Alabama School of Medicine, 1913-14; Assistant and Instructor in Pathology, Washington University Medical School, 1914-20.

4949 Forest Park Boulevard

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4720a Kensington Avenue

GEORGE WADE WILSON, M.D. . . . . *Associate in Medicine*

A.B., St. Louis University, 1910; A.M., 1913; and M.D., 1914. Interne, Providence Hospital, Washington, D. C., 1914-15; Assistant Physician, Jewish Hospital, 1916-17. Assistant in Medicine and Pathology, St. Louis University School of Medicine, 1916-17; Fellow, 1917-18, and Assistant, 1918-19, in Pathology and Bacteriology, Rockefeller Institute for Medical Research; Professor, Head of Department of Pathology, Bacteriology, and Preventive Medicine, Loyola University School of Medicine, 1919-20. *Assistant Physician to Barnes Hospital, and Chief of Medical Clinic, Washington University Dispensary.*

5630 Delmar Boulevard

ROBERT WILLIAM KERR, M.D., Major, Medical Corps, United States Army. *Assistant Professor of Military Science and Tactics*

M.D., Yale University, 1903. Interne, New York Children's Hospital, 1903-04; New York Infant Asylum and Marion Street Maternity Hospital, 1904-05. Bacteriologist, 1907-08, Attending Physician, 1908, Newport Hospital.

4301 Lindell Boulevard

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LL.B., Harvard University, 1904.

Security Building

EDGAR ALLEN, A.M. . . . . *Instructor in Anatomy*

Ph.B., Brown University, 1915, and A.M., 1916. Laboratory Instructor in Embryology and Histology, Brown University, 1915-17; Assistant Bacteriologist, Rhode Island State Board of Health, 1919.

4160 Maryland Avenue

FRANK HENRY EWERHARDT, M.D. . . . . *Instructor in Medicine*

M.D., Washington University, 1909. Assistant in Anatomy, 1913-14, and Assistant in Medicine, 1915-20, Washington University Medical School; Assistant Surgeon, Orthopedic Out Patient Clinic, St. Louis Children's Hospital, 1912-14. Surgeon to Out Patients, Washington University Dispensary, 1915-20. *Physician in Charge of Hydro- and Physical Therapeutic Department, Barnes Hospital.*

5204 Kensington Avenue

EDWIN PARTRIDGE LEHMAN, M.D. . . . . *Instructor in Surgery*

A.B., Williams College, 1910; M.D., Harvard University, 1914; Interne, Peter Bent Brigham Hospital, Boston, 1914-15. Assistant Resident Surgeon, Barnes Hospital, 1915-16, and Resident Surgeon, 1919-20. Assistant in Surgery, Washington University School of Medicine, 1916-20. *Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

4949 Forest Park Boulevard

KIRSTEN UTHEIM, M.D. . . . . *Instructor in Pediatrics*

M.D., University of Norway, 1916; Interne, Kristiania Kommunale Sykehus, 1916-17; Assistant in Pediatrics, Rikshospitalet, Kristiania, 1918-19. *Physician to Out Patients, Washington University Dispensary.*

St. Louis Children's Hospital

LEWIS DUNBAR STEVENSON, M.D. *Instructor in Neuropathology*

B.A., M.B., C.M., M.D., Queen's University, Canada, 1916. Interne and Resident Neurologist, Bellevue Hospital, 1919-20. *Physician to Out Patients, Washington University Dispensary.*

1606 Bellevue Avenue, Richmond Heights

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D.V.M., Kansas City Veterinary College, 1912; M.D., St. Louis University, 1916. Assistant in Comparative Pathology, Washington University School of Medicine, 1916-17; Resident Pathologist, Barnes Hospital, and

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Assistant Pathologist to the St. Louis Children's Hospital, 1918-19. *Assistant Pathologist to the Barnes Hospital.*

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WAYNE ARTHUR RUPE, M.D. . . . . *Assistant in Pediatrics*

A.B., University of Missouri, 1916; M.D., Washington University, 1918. Interne and Assistant Resident Physician, St. Louis Children's Hospital, 1918-19. *Resident Physician, St. Louis Children's Hospital, and Physician to Out Patients, Washington University Dispensary.*

St. Louis Children's Hospital

ALFRED GOLDMAN, M.D. . . . . *Assistant in Pathology*

A.B., Washington University, 1916, and M.D., 1920. *Resident Pathologist, Barnes Hospital.*

Barnes Hospital

IRENE KOECHIG, A.M. . . . . *Assistant in Biological Chemistry*

A.B., Washington University, 1912; A.M., 1913.

5122 Waterman Avenue

WILLIAM ANDREW HUDSON, M.D. . . . . *Assistant in Pathology*

B.S., Washington University, 1918, and M.D., 1920. Assistant in Physiology, Kansas State Normal School, Summer Session, 1919. *Pathologist to St. Louis City Hospital.*

5059 Vernon Avenue

GEORGE R. HERRMANN, M.D. . . . . *Assistant in Medicine*

B.S., University of Michigan, 1916; M.D., 1918; and M.S., 1918. Research Fellow in Pathology, University of Michigan, 1918. House Officer, Peter Bent Brigham Hospital, 1918-19; Assistant Resident Physician, Barnes Hospital, 1919-20. *Resident Physician, Barnes Hospital.*

Barnes Hospital

ALFRED POYNEER BRIGGS, B.S. *Assistant in Biological Chemistry*

B.S., University of Colorado, 1912.

4949 Forest Park Boulevard

ARCHIE DREYFUS CARR, B.S. . . . . *Assistant in Pharmacology*  
B.S., Washington University, 1918.

5044 Raymond Avenue

HARVEY LESTER WHITE, M.D. . . . . *Assistant in Physiology*  
B.S., Washington University, 1918, and M.D., 1920. Interne, St. Louis  
Children's Hospital, 1920.

St. Louis Children's Hospital

GLOVER H. COPHER, M.D. . . . . *Assistant in Surgery*  
A.B., University of Missouri, 1916; M.D., Washington University, 1918.  
Assistant Resident Surgeon, Barnes Hospital, 1918-20. *Resident Surgeon,*  
*Barnes Hospital.*

Barnes Hospital

GEORGE BLAINE GARRISON, M.D. . . . . *Assistant in Surgery*  
A.B., University of Kansas, 1915; M.D., Washington University, 1917.  
Interne, Colon Hospital, Canal Zone, 1917-18; Assistant Superintendent,  
Barnes Hospital, 1919-20. *Assistant Resident Surgeon, Barnes Hospital.*

Barnes Hospital

EARL CALVIN PADGETT, M.D. . . . . *Assistant in Surgery*  
B.S., University of Kansas, 1916; M.D., Washington University, 1918.  
Interne, Barnes Hospital, 1919-20. *Assistant Resident Surgeon, Barnes*  
*Hospital.*

Barnes Hospital

GEORGE WILSON BELCHER, M.D. . . . . *Assistant in Surgery*  
B.S., Washington University, 1917; M.D., 1919. Interne, Barnes Hos-  
pital, 1919-20. *Assistant Resident Surgeon, Barnes Hospital.*

Barnes Hospital

WILLIAM HAROLD CHAMBERS, Ph.D. *Assistant in Experimental*  
*Surgery*

B.S., University of Illinois, 1915; M.S., 1917; Ph.D., Washington Univer-  
sity, 1920. Assistant in Research in Pathology, Barnard Free Skin and  
Cancer Hospital.

7347 Marietta Avenue

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**JOHN BLASDEL SHAPLEIGH, M.D.** . . . *Clinical Professor of Otolology*

A.B., Washington University, 1878; M.D., St. Louis Medical College, 1881; Interne, St. Louis City Hospital, 1881-82; Interne, Female Hospital, 1882-83. Lecturer on Diseases of the Ear, 1886-90, and Clinical Professor, Diseases of the Ear, 1890-95, St. Louis Medical College; Dean of the Medical Faculty, Medical Department of Washington University, 1901-02; Professor of Otolology, St. Louis Medical College and Washington University Medical School, 1895-1912. Member of the Hospital Board of the City of St. Louis, 1910-12; Member of the Medical Staff of St. Luke's Hospital, and Barnard Free Skin and Cancer Hospital. *Otologist to the the Barnes Hospital, St. Louis Children's Hospital, and the Washington University Dispensary.*

Humboldt Building

**HENRY SCHWARZ, M.D.** . . . . . *Clinical Professor of Obstetrics*

M.D., St. Louis Medical College, 1879, and University of Giessen, 1880; Resident Physician, Recurrent Fever Hospital, Giessen, 1879-80; Assistant Physician and Tutor, Department of Obstetrics, University of Giessen, 1880-81; and University of Heidelberg, 1881-83. Clinical Lecturer on Gynecology, 1886-89, and Clinical Professor of Gynecology, 1889-99, St. Louis Medical College; Professor of Obstetrics, 1899-1908, and Professor of Obstetrics and Gynecology, 1908-12, Washington University Medical School. *Obstetrician in Chief to the Barnes Hospital and the Washington University Dispensary, and Consulting Surgeon, St. Louis City Hospital.*

440 N. Newstead Avenue

**PAUL YOER TUPPER, M.D.** . . . . . *Clinical Professor of Surgery*

M.D., Central University, Kentucky, 1880; Interne, City Hospital and Forest Hill Lying-in Hospital, Louisville, 1880-81. Visiting Surgeon, St. Luke's Hospital; Consulting Surgeon, Bethesda Hospital, St. John's Hospital, and the Jewish Hospital.

Wall Building

**FRANCIS RHODES FRY, M.D.** . . . . . *Clinical Professor of Neurology*

A.B., Ohio Wesleyan University, 1877, and A.M., 1880; M.D., St. Louis Medical College, 1879; Interne, St. Louis City Hospital, 1879-80. Assistant Demonstrator and Demonstrator of Anatomy, 1881-88, Clinical Lecturer on Diseases of the Nervous System, 1887-90, Professor of Anatomy, 1888-90, and Professor of Diseases of the Nervous System, 1890-99, St. Louis Medical College. Member of Staff of St. Luke's Hospital, the Barnard Free Skin and Cancer Hospital, The Missouri Baptist Sani-



tarium, and of the Consulting Staff of the Jewish Hospital, and of St. John's Hospital.

Humboldt Building

HARVEY GILMER MUDD, M.D. . . . *Clinical Professor of Surgery*

M.D., St. Louis Medical College, 1881; Interne, St. Louis City Hospital, 1881-82; Interne, Female Hospital, 1881-82. Demonstrator of Anatomy, Lecturer on Osteology and Professor of Osteology and Regional Anatomy, 1888-99, Professor of Fractures and Dislocations and Clinical Surgery, 1899, St. Louis Medical College. Surgeon and Chief of Staff, St. Luke's Hospital; Surgeon to the Barnard Free Skin and Cancer Hospital.

Humboldt Building

GEORGE MARVINE TUTTLE, M.D. . . *Clinical Professor of Pediatrics*

A.B., Columbia University, 1888, and M.D., 1891; Interne, St. Luke's Hospital, New York, and New York Nursery and Child's Hospital, 1892-94. Professor of Therapeutics, Washington University Medical School, 1899-1908. Attending Physician, Martha Parsons Free Hospital for Children, 1894-1910; Chief of Staff, St. Louis Children's Hospital, 1910-12; Attending Physician, St. Luke's Hospital. *Consulting Physician to the St. Louis Children's Hospital, and Visiting Physician to the Infectious Disease Hospital.*

4917 Maryland Avenue

ELSWORTH STRIKER SMITH, M.D. . . *Clinical Professor of Medicine*

A.B., St. Louis University, 1884, and A.M., 1888; M.D., St. Louis Medical College, 1887; Interne, Assistant Physician, and Assistant Superintendent, St. Louis City Hospital, 1887-90. Demonstrator in Anatomy, Instructor in Physical Diagnosis and Assistant Physician to the Medical Clinic, St. Louis Medical College, 1890-99. Physician, St. Luke's Hospital; Consulting Physician, St. John's Hospital, Jewish Hospital, Barnard Free Skin and Cancer Hospital, Frisco Hospital and St. Louis Maternity Hospital. *Assistant Physician to the Barnes Hospital.*

4502 Maryland Avenue

ARTHUR EUGENE EWING, M.D. . . *Clinical Professor of Ophthalmology*

A.B., Dartmouth College, 1878; M.D., St. Louis Medical College, 1883; A.M., Washington University, 1912. Clinical Lecturer on Ophthalmology, St. Louis Medical College, 1895. Assistant in the Ophthalmic Clinic of St. Luke's Hospital, 1888-95. *Ophthalmologist to the Barnes Hospital and to the St. Louis Children's Hospital, and Chief of the Ophthalmological Clinic, Washington University Dispensary.*

Metropolitan Building

GREENFIELD SLUDER, M.D. *Clinical Professor of Laryngology and Rhinology*

M.D., St. Louis Medical College, 1888; Interne, St. Louis City Hospital, 1888-92. Instructor in Urinology and in Clinical Medicine, 1891-98, and Lecturer on Laryngology, St. Louis Medical College, 1898-99, and Medical Department of Washington University, 1899-1905. Member of Staff of St. Luke's Hospital and Barnard Free Skin and Cancer Hospital. *Laryngologist to the Barnes Hospital, the St. Louis Children's Hospital, and the Washington University Dispensary.*

3542 Washington Avenue

MARTIN FEENEY ENGMAN, M.D. *Clinical Professor of Dermatology*

M.D., University of New York, 1891; Interne, New York Skin and Cancer Hospital and Gouverneur Hospital, New York, 1891-93. Lecturer on Dermatology, New York Post Graduate Medical School, 1894; Lecturer on Dermatology, St. Louis University, 1910-12. Assistant in Skin Department, Demilt Dispensary, and Vanderbilt Clinic, New York, 1894. Member of the Hospital Board, City of St. Louis, 1912; President of the Medical Board, Barnard Free Skin and Cancer Hospital. *Dermatologist to the Barnes Hospital and the St. Louis Children's Hospital, Dermatologist in Chief to the Washington University Dispensary, and Visiting Physician, St. Louis City Hospital.*

Wall Building

BORDEN SMITH VEEDER, M.D. . . . *Professor of Clinical Pediatrics*

M.D., University of Pennsylvania, 1907; Interne, University of Pennsylvania Hospital, 1907-08; Assistant Demonstrator in Pathology, University of Pennsylvania, 1909-11; Pathologist, St. Christopher's Hospital, Philadelphia, 1909-11; Assistant Pathologist, General Hospital, Philadelphia, 1909-11; Medical Director, Babies' Hospital, Philadelphia, 1911; Associate in and Associate Professor of Pediatrics, Washington University Medical School, 1911-17. *Consulting Physician, St. Louis City Hospital and Infectious Disease Hospital; Consulting Physician, St. Louis Children's Hospital.*

Humboldt Building

SIDNEY ISAAC SCHWAB, M.D. . . . *Professor of Clinical Neurology*

M.D., Harvard University, 1896. Professor of Nervous and Mental Diseases, St. Louis University, 1904-12; Non-resident Lecturer on Nervous and Mental Diseases, University of Missouri School of Medicine, 1909-10; Associate in Neurology, and Associate Professor of Clinical Neurology,

Washington University Medical School, 1913-19. Visiting Neurologist to the St. Louis City Hospital and Sanitarium, 1909-13; Neurologist to the Jewish Hospital. *Consulting Physician, St. Louis City Hospital and City Sanitarium; Neurologist to the Barnes Hospital and the St. Louis Children's Hospital; and Chief of the Neurological Clinic, Washington University Dispensary.*

Humboldt Building

ERNEST SACHS, M.D. . . . *Professor of Clinical Neurological Surgery*

A.B., Harvard University, 1900; M.D., Johns Hopkins University, 1904; Interne, Mt. Sinai Hospital, New York, 1904-07; Clinical Clerk, National Hospital, London, 1908. Attending Neurological Surgeon to Montefiore Home and Beth Israel Hospitals, and Adjunct Assistant Attending Surgeon to Bellevue Hospital, New York, 1909-11. Associate in and Associate Professor of Surgery, Washington University Medical School, 1911-19. Associate Surgeon in Charge of Neurological Surgery, Jewish Hospital. *Associate Surgeon to the Barnes Hospital and the St. Louis Children's Hospital; Surgeon to Out Patients, Washington University Dispensary; Consulting Surgeon, St. Louis City Sanitarium.*

97 Arundel Place

MAJOR GABRIEL SEELIG, M.D. . . . . *Professor of Clinical Surgery*

A.B., Harvard University, 1896; M.D., Columbia University, 1900; Interne, Mount Sinai Hospital, New York City, 1900-03; Instructor, Assistant Professor, and Professor of Surgery, St. Louis University School of Medicine, 1904-19. Surgeon to the Jewish Hospital.

University Club Building

ALBERT ERNEST TAUSSIG, M.D. *Associate Professor of Clinical Medicine*

A.B., Harvard University, 1891; M.D., St. Louis Medical College, 1894; Interne, St. Louis City Hospital, 1894-95; Professor of Physiology, 1909, Clinical Professor of Medicine, 1910-12, and Associate in Medicine, 1912-14, Washington University Medical School. Physician to the Jewish Hospital. *Assistant Physician to the Barnes Hospital, and Visiting Physician, St. Louis City Hospital.*

Wall Building

HARRY STURGEON CROSSEN, M.D. *Associate in Clinical Gynecology*

M.D., St. Louis Medical College, 1892; Interne, St. Louis City Hospital, 1892-95. Superintendent and Surgeon in Charge, Female Hospital, 1895-

99; Chairman of the Gynecological Staff of the St. Louis City Hospital, 1910-12; Gynecologist, St. Luke's Hospital and Bethesda Hospital. *Associate Gynecologist to the Barnes Hospital.*

Metropolitan Building

WILLARD BARTLETT, M.D. . . . . *Associate in Clinical Surgery*

A.B., Illinois College, 1892, and A.M., 1898; M.D., Marion Sims College of Medicine, 1895. Demonstrator of Pathological Anatomy, University of Berlin, 1896-97; Voluntary Assistant, University of Strassburg, 1897-98; Professor of Pathology, Marion Sims College of Medicine, 1898-1901; Demonstrator and Professor of Experimental Surgery, Washington University Medical School, 1901-12. Chairman of Surgical Staff, St. Louis City Hospital, 1910-12. Surgeon to Missouri Baptist Sanitarium.

Metropolitan Building

VILRAY PAPIN BLAIR, M.D. . . . . *Associate in Clinical Surgery*

A.M., Christian Brothers College, 1890; M.D., St. Louis Medical College, 1893; Interne, St. Louis Mullanphy Hospital, 1893-95. Instructor in Practical Anatomy, Associate Professor of Anatomy, and Clinical Professor of Surgery, Washington University Medical School, 1894-1912. Visiting Surgeon to St. Luke's Hospital and St. Louis Maternity Hospital. *Assistant Surgeon to the Barnes Hospital and the St. Louis Children's Hospital.*

Metropolitan Building

MEYER WIENER, M.D. . . . . *Associate in Clinical Ophthalmology*

M.D., Missouri Medical College, 1896; Interne, St. Louis City Hospital, 1896-97. Member of Staff and Chief of Eye Clinic, Jewish Hospital; Member of Staff of Bethesda Hospital, St. Vincent's Asylum, and St. Louis Maternity Hospital. *Assistant Ophthalmologist to the Barnes Hospital, Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

Carleton Building

GEORGE GELLHORN, M.D. . . . . *Associate in Clinical Gynecology*

M.D., University of Wurzburg, 1894. Assistant in Gynecology, Mackenrodt Hospital, Berlin, 1895-97, Assistant in Obstetrics, University of Jena, 1898, and University of Vienna, 1899; Instructor and Lecturer in Gynecology, Washington University Medical School, 1904-11. Gynecologist to St. Luke's Hospital and to Barnard Free Skin and Cancer Hospital; Consulting Obstetrician to St. Louis Maternity Hospital; Consult-

ing Gynecologist to St. John's Hospital. *Assistant Gynecologist to the Barnes Hospital, and Visiting Surgeon, St. Louis City Hospital.*

Metropolitan Building

FREDERICK JOSEPH TAUSSIG, M.D. *Associate in Clinical Gynecology*

A.B., Harvard University, 1893; M.D., St. Louis Medical College, 1898; Interne and Assistant Superintendent, Female Hospital, St. Louis, 1898-1901. Instructor and Lecturer in Gynecology, Washington University Medical School, 1906-09. Clinical Assistant, 1906-08, Surgeon to Out Patients, 1909-11, and Chief of Gynecological Out Patient Clinic, 1912-14, Washington University Hospital; Gynecologist, Barnard Free Skin and Cancer Hospital; Obstetrician, St. Louis Maternity Hospital; Consulting Gynecologist, St. John's Hospital. *Assistant Gynecologist to the Barnes Hospital, and Visiting Surgeon, St. Louis City Hospital.*

3519 Washington Avenue

MALVERN BRYAN CLOPTON, M.D. *Associate in Clinical Surgery*

M.D., University of Virginia, 1897; Interne, Johns Hopkins Hospital, Baltimore, 1898-99. Instructor in Clinical Surgery, Washington University Medical School, 1906-10. Chief of Surgical Clinic, O'Fallon Dispensary, 1907-09; Visiting Surgeon, St. Luke's Hospital, 1900-20; Associate Surgeon, St. Louis Mullanphy Hospital, 1907-15. *Assistant Surgeon to the Barnes Hospital, and Associate Surgeon, St. Louis Children's Hospital.*

Humboldt Building

RALPH WALTER MILLS, M.D. *Associate in Clinical Medicine*

B.S., University of Illinois, 1899; M.D., Marion Sims Medical College, 1902; Interne, Alexian Brothers Hospital, St. Louis, 1902-03. Assistant in Pathology, 1904-05, and Instructor in Dietetics, 1908-14, Washington University Medical School. *Assistant Physician and Roentgenologist to the Barnes Hospital, and Gastro-enterologist to Out Patients, Washington University Dispensary.*

3701 Westminster Place

JOHN ROBERTS CAULK, M.D. *Associate in Clinical Genito-Urinary Surgery*

A.B., St. John's College, 1901, and A.M., 1912; M.D., Johns Hopkins Medical School, 1906; Interne and Second Assistant Resident Physician, Union Protestant Infirmary, Baltimore, 1906-07; Assistant Resident Surgeon, Johns Hopkins Hospital, 1908-10. Instructor in Genito-Urinary Surgery, Washington University Medical School, 1911-17. Genito-Urinary



Surgeon to St. Luke's Hospital. *Assistant Surgeon to the Barnes Hospital, Urologist to the St. Louis Children's Hospital, and Chief of the Clinic for Genito-Urinary Surgery, Washington University Dispensary.*

University Club Building

BARNEY BROOKS, M.D. . . . . *Associate in Clinical Surgery*

B.S., University of Texas, 1905; M.D., Johns Hopkins University, 1911; Resident House Officer, Johns Hopkins Hospital, 1911-12. Assistant, Instructor, and Associate in Surgery, Washington University Medical School, 1912-19. Resident Surgeon, Barnes Hospital, 1914-16. *Assistant Surgeon to the Barnes Hospital and the St. Louis Children's Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

4918 Forest Park Boulevard

ARTHUR OSCAR FISHER, M.D. . . . . *Associate in Clinical Surgery*

A.B., University of Wisconsin, 1905; M.D., Johns Hopkins University, 1909; Resident House Officer and Assistant Resident Surgeon, Johns Hopkins Hospital, 1909-11. Assistant and Instructor in Surgery, Washington University Medical School, 1911-18. *Assistant Surgeon to the Barnes Hospital and to the St. Louis Children's Hospital, and Chief of the Surgical Clinic, Washington University Dispensary.*

Humboldt Building

WILLIAM EWING SHAHAN, M.D. . . . . *Associate in Clinical Ophthalmology*

A.B., Washington University, 1901; A.M., 1912; M.D., 1904. Instructor in Chemistry, 1903, Assistant and Instructor in Ophthalmology, 1915-19, Washington University Medical School. *Surgeon to Out Patients, Washington University Dispensary.*

Metropolitan Building

LELAND BARTON ALFORD, M.D. . . *Associate in Clinical Neurology*

A.B., University of Missouri, 1908; M.D., Washington University, 1912. Acting Pathologist and Research Officer, Monson State Hospital, Palmer, Mass., 1910-11; Interne, Telfair Hospital, Savannah, 1912. Assistant in Pathology, 1912-14, and Instructor in Neurology, 1914-17, Washington University Medical School. *Assistant Neurologist to the Barnes Hospital; Physician to Out Patients, Washington University Dispensary; Visiting Physician, St. Louis City Hospital and City Sanitarium.*

Humboldt Building



WILLIAM FREDERIC HARDY, M.D. *Associate in Clinical Ophthalmology*

M.D., Washington University, 1901; Interne, St. Louis City Hospital, 1901-02. Assistant and Instructor in Clinical Ophthalmology, Washington University School of Medicine, 1917-20. *Assistant Ophthalmologist to the Barnes Hospital; Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon to the St. Louis City Hospital.*

Metropolitan Building

WILLIAM HARWOOD OLMSTED, M.D. *Associate in Clinical Medicine*

B.S., Coe College, 1909; M.D., Johns Hopkins University, 1913; Interne, Washington University Hospital, 1913-14. Assistant Resident Physician, Barnes Hospital, 1914-17. *Assistant Physician to the Barnes Hospital, and Physician to Out Patients, Washington University Dispensary.*

Euclid Avenue and Kingshighway

JAMES ARCHER O'REILLY, M.D. *Associate in Clinical Orthopedic Surgery*

A.B., Harvard University, 1902, and M.D., 1906; Interne, Carney Hospital, Boston, 1906-07. Assistant in Orthopedic Clinic, Children's Hospital, Boston; Instructor in Orthopedic Surgery, St. Louis University Medical School, 1907-11. Orthopedic Surgeon to St. John's Hospital, Rebekeh Hospital, and Mt. St. Rose Hospital. *Assistant Surgeon to the St. Louis Children's Hospital and the Barnes Hospital; Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

Metropolitan Building

HARRY WEBSTER LYMAN, M.D. . . . *Associate in Clinical Otology*

M.D., St. Louis College of Physicians and Surgeons, 1895; Interne, St. Louis Woman's Hospital, 1895-96; Clinical Clerk, London Hospital, 1900. Assistant, St. Louis College of Physicians and Surgeons, 1895-96; Consulting Otologist, Rhinologist and Laryngologist, St. Louis City Hospital, 1905-10. Demonstrator and Professor of Anatomy, St. Louis College of Physicians and Surgeons, 1900-07; Assistant in Otology, Washington University Medical School, 1914-16, and Instructor in Clinical Otology, 1916-20. *Assistant Otologist to the Barnes Hospital and to the St. Louis Children's Hospital, and Chief of Otological Clinic, Washington University Dispensary.*

Carleton Building

**WALTER BAUMGARTEN, M.D.** . . . *Instructor in Clinical Medicine*

A.B., Johns Hopkins University, 1894; M.D., St. Louis Medical College, 1896; Interne, Female Hospital and St. Louis City Hospital, 1896-97. Assistant in Physiology, Harvard Medical School, 1897-98; Assistant in Medicine, Johns Hopkins Medical School, 1902-03; Instructor in Clinical Chemistry and Microscopy, Washington University Medical School, 1903-08. Member of the Medical Staff, St. Louis Maternity Hospital, 1908-13, and St. Louis Mullanphy Hospital, 1911-19. Member of the Medical Staff, St. Luke's Hospital. *Assistant Physician to the Barnes Hospital.*

Humboldt Building

**WILLIAM EMIL SAUER, M.D.** . *Instructor in Clinical Laryngology*

M.D., St. Louis Medical College, 1896; Interne, St. Louis City Hospital and Female Hospital, 1896-97. Clinical Instructor in Laryngology, Washington University Medical School, 1906-11. Assistant Physician, St. Louis Insane Asylum, 1897-98; Clinical Assistant, Surgeon to Out Patients, and Chief of Laryngological Out Patient Clinic, 1907-14, Washington University Hospital; Assistant Laryngologist to the Barnes Hospital, 1915-20; Otologist and Laryngologist to St. Louis Mullanphy Hospital and Bethesda Hospital; Laryngologist to St. Louis Maternity Hospital. *Visiting Surgeon, St. Louis City Hospital.*

Humboldt Building

**WILLIAM HEWSON MOOK, M.D.** . *Instructor in Clinical Dermatology*

M.D., Beaumont Medical College, 1900; Interne, St. Louis City Hospital, 1900-01, and New York Skin and Cancer Hospital, 1903-05. Associate Professor of Dermatology, St. Louis University, 1910-12. Visiting Dermatologist, St. Louis City Hospital, 1910-12, 1914-20; Attending Physician, Barnard Free Skin and Cancer Hospital; Dermatologist, Missouri Pacific Railway Hospital. *Assistant Dermatologist to the Barnes Hospital and the St. Louis Children's Hospital, and Chief of the Dermatological Clinic, Washington University Dispensary.*

Wall Building

**JEROME EPSTEIN COOK, M.D.** . . . *Instructor in Clinical Medicine*

M.D., Washington University, 1905; Assistant Physician, St. Louis City Hospital, 1905-06. Professor of Bacteriology and General Pathology, Washington University Dental School; Assistant in Medicine, Washington University Medical School, 1910-14; Associate Physician to the Jewish Hospital. *Assistant Physician to the Barnes Hospital; Physician to Out Patients, Washington University Dispensary, and Visiting Physician, St. Louis City Hospital.*

Metropolitan Building

GRANDISON DELANEY ROYSTON, M.D. *Instructor in Clinical Obstetrics*

M.D., Washington University, 1907; Junior and Senior Obstetrical Resident, Washington University Hospital, 1907-09. Assistant in Obstetrics, Washington University Medical School, 1913-15. Assistant Superintendent, St. Louis Female Hospital, 1910; Member of Medical Staff, St. Louis Maternity Hospital. *Assistant Obstetrician to the Barnes Hospital and Chief of the Obstetrical and Gynecological Clinic, Washington University Dispensary.*

3705 Lindell Boulevard

HENRY EDWARD MILLER, M.D. *Instructor in Clinical Laryngology and Rhinology*

M.D., Washington University, 1902; Interne, St. Louis City Hospital, 1902-03. *Surgeon to Out Patients, Washington University Dispensary.*

Metropolitan Building

CHARLES ARMIN GUNDELACH, M.D. *Instructor in Clinical Laryngology and Rhinology*

M.D., Washington University, 1908; Interne, St. Louis City Hospital, 1908-09. Assistant in Laryngology and Rhinology, Washington University Medical School, 1915. Assistant Laryngologist to Barnes Hospital, 1917-20; Surgeon to Out Patients, Washington University Dispensary, 1915-20; Consulting Surgeon, St. Louis City Hospital. *Assistant Laryngologist to the St. Louis Children's Hospital.*

University Club Building

LLEWELLYN SALE, M.D. . . . . *Instructor in Clinical Medicine*

M.D., Washington University, 1907; Interne, St. Louis City Hospital, 1907-08. Assistant Professor, St. Louis University School of Medicine, 1910-14; Assistant in Medicine, Washington University Medical School, 1914-16. Associate Physician, Jewish Hospital, St. Louis; Consulting Physician, St. John's Hospital. *Physician to Out Patients, Washington University Dispensary, and Visiting Physician, St. Louis City Hospital.*

3519 Washington Avenue

ADRIEN SAMUEL BLEYER, M.D. . . *Instructor in Clinical Pediatrics*

M.D., Missouri Medical College, 1899; Assistant Physician, St. Louis City Hospital, 1899-1900, and Female Hospital, 1900-01. Lecturer on Hygiene, Medical Department of Washington University, 1907-11. Lecturer on Preventive Medicine, Washington University School of Medicine; Active Pediatrician, St. Louis Maternity Hospital. *Assistant Physician, St.*

*Louis Children's Hospital; Physician to Out Patients, Washington University Dispensary, and Visiting Physician, St. Louis City Hospital.*

University Club Building

LOUIS HENRY HEMPELMANN, M.D. . . . . *Instructor in Clinical Medicine*

M.D., St. Louis Medical College, 1896; Interne, St. Louis City Hospital and City Insane Asylum, 1896-98. Assistant Superintendent, Insane Asylum, 1898; Instructor in Clinical Medicine, Washington University Medical School, 1904-12; Consultant, St. Louis City Hospital, 1909-11; Visiting Physician, St. Louis Mullanphy Hospital, 1900-18; Visiting Physician, Deaconess Hospital.

Metropolitan Building

HUGH McCULLOCH, M.D. . . . . *Instructor in Clinical Pediatrics*

A.B., University of Arkansas, 1908; M.D., Johns Hopkins Medical School, 1912; Resident House Officer, Washington University Hospital, 1912-13; Resident Physician, Washington University and Barnes Hospitals, 1912-15. Assistant in Medicine, 1913-15, and Assistant in Pediatrics, 1915-16, Washington University Medical School. *Assistant Physician, St. Louis Children's Hospital, and Physician to Out Patients, Washington University Dispensary.*

University Club Building

THEODORE CARL HEMPELMANN, M.D. . . . . *Instructor in Clinical Pediatrics*

M.D., Washington University, 1908; Interne, St. Louis City Hospital, 1908-09. Assistant Physician to Out Patients, St. Louis Children's Hospital, 1911-13; Pediatrician to the Deaconess Hospital. *Associate Physician to the St. Louis Children's Hospital; Physician to Out Patients, Washington University Dispensary, and Visiting Physician, St. Louis City Hospital and Infectious Disease Hospital.*

Metropolitan Building

JACOB JESSE SINGER, M.D. . . . . *Instructor in Clinical Medicine*

M.D., Washington University, 1904; Interne, St. Louis Female Hospital, 1904-06. Assistant Physician, City Dispensary, 1906-09. Consulting Physician, City Sanitarium, 1914-16; Consulting Physician, Lutheran Hospital; Physician to Night and Day Camp; Consultant to the Jewish Home for Chronic Invalids. *Physician to Out Patients, Washington University Dispensary.*

5752 Westminster Place

OTTO HENRY SCHWARZ, M.D. . . . *Instructor in Clinical Obstetrics*

M. D., Washington University, 1913; Interne, St. Louis Children's Hospital, 1913, and Washington University Hospital, 1914; Resident Obstetrician, Barnes Hospital, 1914-15. Assistant in Clinical Obstetrics, Washington University School of Medicine, 1915-18. *Assistant Gynecologist to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

WILLIAM MORGAN CASE BRYAN, M.D. *Instructor in Clinical Laryngology and Rhinology*

A.B., Washington University, 1897; M.S., University of Michigan, 1898; M.D., Johns Hopkins University, 1902; Interne, German Hospital, 1902-04. Instructor, Ear, Nose and Throat Diseases, St. Louis University, 1908-16; Assistant in Clinical Laryngology and Rhinology, Washington University School of Medicine, 1917-19. Consultant in Oto-Laryngology, Alexian Brothers Hospital and St. John's Hospital. *Assistant Laryngologist to the Barnes Hospital, and Chief of the Laryngological Clinic, Washington University Dispensary.*

University Club Building

WALTER FISCHER, M.D. . . . . *Instructor in Clinical Medicine*

A.B., Harvard University, 1902; M.D., Washington University, 1905; Assistant Physician, St. Louis City Hospital, 1905-06. Clinical Assistant, 1908-09, Physician to Out Patients, 1909-14, Washington University Hospital; Physician to Out Patients, Washington University Dispensary, 1919-20. Assistant in Clinical Medicine, Washington University School of Medicine, 1909-19. Visiting Physician, St. Luke's Hospital. *Assistant Physician to the Barnes Hospital, and Visiting Physician, St. Louis City Hospital.*

Humboldt Building

DREW WILLIAM LUTEN, M.D. . . . *Instructor in Clinical Medicine*

A.B., State University of Kentucky, 1901; M.D., Johns Hopkins University, 1911; Interne, St. Francis Hospital, Pittsburgh, 1911-12; Assistant Resident Physician and Resident Physician, Barnes Hospital, 1914-17; Assistant in Medicine, Washington University Medical School, 1915-17. *Assistant Physician to the Barnes Hospital, and Visiting Physician, St. Louis City Hospital.*

University Club Building

**RICHARD SIMON WEISS, M.D.** *Instructor in Clinical Dermatology*

M.D., Washington University, 1909; Interne, St. Louis City Hospital, 1909-10. Visiting Physician, St. Louis City Hospital, 1914-15; Visiting Physician, City Sanitarium and Isolation Hospital, St. Louis; Dermatologist to Lutheran Hospital. *Physician to Out Patients, Washington University Dispensary, and Visiting Physician, St. Louis City Hospital.*

Wall Building

**ISAAC DEE KELLEY, JR., M.D.** . . . *Instructor in Clinical Otology*

B.S., St. Louis University, 1913, and M.D., 1908; Interne, St. Louis City Hospital, 1908-09. Assistant and Instructor in Ear, Nose, and Throat Diseases, St. Louis University, 1909-17; Assistant in Clinical Otology, Washington University School of Medicine, 1919-20. Consulting Oto-Laryngologist, St. Louis City Hospital, 1913-14; Oto-Laryngologist, St. Mary's Infirmary, 1913-20. *Assistant Otologist to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

Humboldt Building

**CHARLES ALLEN STONE, M.D.** *Instructor in Clinical Orthopedic Surgery*

B.S., Blackburn College, 1904; M.D., Washington University, 1908; Interne, Martha Parsons Free Hospital for Children, 1908-09. Assistant Surgeon to Out Patients Martha Parsons Free Hospital for Children and St. Louis Children's Hospital, 1908-14; Orthopedic Surgeon to St. Louis Mullanphy Hospital. *Clinical Assistant in Orthopedic Surgery to St. Louis Children's Hospital; Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

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**OMAR RICHARD SEVIN, M.D.** . . . . *Instructor in Clinical Surgery*

M.D., Washington University, 1913; Interne and Assistant Resident, Washington University Hospital, 1913-16; Resident Surgeon, Barnes Hospital, 1916-18. Assistant in Surgery, Washington University Medical School, 1916-18.

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**WARREN ROBERT RAINEY, M.D.** *Instructor in Clinical Surgery*

M.D., Northwestern University Medical School, 1910. Interne and Resident, Mercy Hospital, Chicago, 1910-13. *Clinical Assistant to the Barnes Hospital and the St. Louis Children's Hospital; Surgeon to Out Patients,*



*Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

University Club Building

ADOLPH GEORGE SCHLOSSSTEIN, M.D. . . . . *Assistant in Clinical Obstetrics*

M.D., St. Louis Medical College, 1894; Interne, St. Louis City Hospital, and Female Hospital, and Physician to City Dispensary, 1894-96; Interne, Frauenklinik, Munich, 1897. Clinical Assistant, Instructor and Lecturer, Washington University Medical School, 1899-1912. *Assistant Obstetrician to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

3153 Longfellow Boulevard

QUITMAN UNDERWOOD NEWELL, M.D. . . . . *Assistant in Clinical Obstetrics*

M.D., University of Alabama, 1911; Interne, Southern Infirmary, Mobile, 1911; House Officer, 1911-12, and Resident Obstetrician and Gynecologist, 1912-14, Washington University Hospital; Obstetrician, St. Louis Maternity Hospital. *Clinical Assistant to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

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WALTER CHARLES GEORGE KIRCHNER, M.D. *Assistant in Clinical Surgery*

A.B., Washington University, 1897; M.D., 1901; Interne, St. Louis City Hospital, 1901-03. Assistant and Instructor in Bacteriology, Washington University Medical Department, 1903-05. Assistant Bacteriologist, Health Department, St. Louis, 1901; Assistant Superintendent, 1903-07, Superintendent, and Surgeon in Charge, 1907-10, St. Louis City Hospital; Consulting Surgeon, St. John's Hospital. *Visiting Surgeon, St. Louis City Hospital.*

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M.D., Washington University, 1906; Interne, St. Louis City Hospital, 1906, St. Luke's Hospital, 1907-08. Assistant in Surgery, Barnard Free Skin and Cancer Hospital, 1908-12; Assistant Surgeon to Out Patients, St. Louis Children's Hospital, 1910-14; Surgical Staff, St. Louis Mulanphy Hospital. *Visiting Surgeon, St. Louis City Hospital.*

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**PHELPS GRANT HURFORD, M.D. . . . *Assistant in Clinical Pediatrics***

M.D., Washington University, 1908; Interne, Washington University Hospital, 1907-08, St. Louis City Hospital, 1908-09. Assistant Surgeon to Out Patients, St. Louis Children's Hospital, 1910-14; Physician to Out Patients, Washington University Dispensary, 1915-20; Pediatricist, St. Louis Mullanphy Hospital; Visiting Pediatrician, St. Louis Lutheran Hospital. *Visiting Physician, Infectious Disease Hospital.*

3526 Washington Avenue

**WILLIAM MURRAY ROBERTSON, M.D. *Assistant in Clinical Genito-Urinary Surgery***

M.D., University of Virginia, 1889; Interne, New York City Hospital, 1890-91. Instructor in Genito-Urinary Surgery, Medical Department of Washington University, 1905-11; Associate Genito-Urinary Surgeon, St. Louis Mullanphy Hospital, 1904-08; Surgeon to Out Patients, Washington University Hospital and Dispensary, 1905-11; Genito-Urinary Surgeon, Jewish Hospital and St. Louis Mullanphy Hospital. *Visiting Surgeon, St. Louis City Hospital.*

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**HENRY McCCLURE YOUNG, M.D. *Assistant in Clinical Genito-Urinary Surgery***

A.B., Yale University, 1899; M.D., Washington University, 1908; Interne, St. Louis City Hospital, 1908-09; Voluntary Assistant, University of Koenigsberg, 1909-10; Instructor in Surgery, St. Louis University School of Medicine, 1911-13; Assistant Genito-Urinary Surgeon, St. Louis Mullanphy Hospital, 1913-15; Surgeon to Out Patients, Washington University Dispensary, 1914-20. *Visiting Surgeon, St. Louis City Hospital.*

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**JOSEPH WILLIAM LARIMORE, M.D. . . *Assistant in Clinical Medicine***

A.B., DePauw University, 1908; M.D., Washington University, 1913; Interne, Washington University Hospital, 1913-14. *Physician to Out Patients, Washington University Dispensary.*

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**GEORGES IVES, M.D. . . . . *Assistant in Clinical Medicine***

A.B., University of Wisconsin, 1907; M.D., Johns Hopkins University, 1911. Assistant in Physiology, University of Wisconsin, 1908; Assistant

Professor of Pathology, St. Louis University School of Medicine, 1912-15; Assistant State Bacteriologist, Alabama, 1911-12; Pathologist, North Chicago Hospital, 1912; Pathologist, St. John's Hospital, St. Louis, 1912-15; Assistant in Dermatology, Washington University Medical School, 1916-17; Consultant in Pathology, U. S. Marine Hospital, St. Louis, 1918; Pathologist, Missouri Baptist Sanitarium; Pathologist, St. Louis Mullanphy Hospital.

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OLIVER HOWARD CAMPBELL, M.D. . . . *Assistant in Clinical Medicine*  
M.D., Missouri Medical College, 1899; Interne, St. Louis City Hospital, 1899-1900. Assistant Physician to Out Patients, Washington University Hospital Dispensary, 1903-11; Instructor in Physiology, Washington University Dental School, 1907. *Visiting Physician, St. Louis City Hospital.*  
3542 Washington Avenue

CHARLES HERMANN EYERMANN, M.D. . . . . *Assistant in Clinical Medicine*  
M.D., St. Louis University, 1911; Interne and Assistant Resident Physician, 1911-13, and Resident Internist, 1915, St. Louis City Hospital. *Physician to Medical Students, Washington University; Assistant Physician to the Barnes Hospital, and Physician to Out Patients, Washington University Dispensary.*

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ELLIS FISCHER, M.D. . . . . *Assistant in Clinical Surgery*  
A.B., Harvard University, 1904; M.D., Washington University, 1908; Interne, St. Louis City Hospital, 1908-10. Formerly Assistant in Pathology, and Voluntary Assistant in Surgery, University of Berne. Assistant Surgeon to Out Patients, Washington University Dispensary, 1913-16; Visiting Surgeon, Barnard Free Skin and Cancer Hospital; Consulting Surgeon, St. Anthony's Hospital. *Visiting Surgeon, St. Louis City Hospital.*

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ALPHONSE FERDINAND DAMES, M.D. *Assistant in Clinical Laryngology and Rhinology*  
M.D., Washington University, 1906. Assistant, Ear, Nose and Throat Clinic, Mullanphy Hospital, 1910-14; Assistant Surgeon to Out Patients, Washington University Hospital Dispensary, 1907-14; Assistant Surgeon and Surgeon to Out Patients, Washington University Dispensary, 1915-20; Oto-Laryngologist, St. Mary's Hospital, East St. Louis.

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MILLARD FILLMORE ARBUCKLE, M.D. *Assistant in Clinical Laryngology and Rhinology, and in Clinical Otology*

M.D., Washington University, 1909. Resident Physician, St. Louis Mullanphy Hospital, 1909-10. *Assistant Laryngologist to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

4500 Olive Street

RALEIGH K. ANDREWS, M.D. . . . . *Assistant in Clinical Medicine*

B.S., University of Nebraska, 1915; M.D., Washington University, 1916; Interne, St. Louis Children's Hospital, 1916-17. Assistant Resident and Resident Physician, Barnes Hospital, 1917-19. Physician to Out Patients, Washington University Dispensary, 1920. *Visiting Physician, St. Louis City Hospital.*

4949 Forest Park Boulevard

ADOLPH HENRY CONRAD, M.D. . *Assistant in Clinical Dermatology*

M.D., St. Louis University, 1906. Associate Physician, Barnard Free Skin and Cancer Hospital, 1908-15. *Physician to Out Patients, Washington University Dispensary.*

Wall Building

FRANK POWELL McNALLEY, M.D. . *Assistant in Clinical Obstetrics*

B.S., Washington University, 1915; M.D., 1917; Interne, Barnes Hospital, 1917-18. Resident Obstetrician and Gynecologist, Barnes Hospital, 1918-20. *Surgeon to Out Patients, Washington University Dispensary.*

Wall Building

HARRY GUS GREDITZER, M.D. *Assistant in Clinical Genito-Urinary Surgery*

M.D., Washington University, 1912; Interne, Washington University Hospital, 1912-13. Assistant Surgeon to Out Patients, Washington University Dispensary, 1913-17. *Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

MAURICE JULIUS LONSWAY, M.D. . *Assistant in Clinical Pediatrics*

B.S., Valparaiso University, 1910; M.D., St. Louis University, 1914. Interne, Washington University Hospital, 1914-15; Resident Physician, St. Louis Children's Hospital, 1917-18. *Assistant Physician to the St.*

*Louis Children's Hospital, and Physician to Out Patients, Washington University Dispensary.*

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FOREST HENRY STALEY, M.D. . . . . *Assistant in Clinical Surgery*

A.B., University of Wisconsin, 1909; M.D., Washington University, 1918; Interne, Assistant Resident Surgeon, and Acting Resident Surgeon, Barnes Hospital, 1917-19. Assistant in Surgery, Washington University School of Medicine, 1919-20.

4267 Manchester Avenue

HARVEY DENSMORE LAMB, M.D. . . . . *Assistant in Clinical Ophthalmology*

A.B., Washington University, 1906, and M.D., 1910; Interne, St. Louis City Hospital, 1910-11. *Surgeon to Out Patients, Washington University Dispensary.*

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LIONEL SINCLAIR LUTON, M.D. . . . *Assistant in Clinical Medicine*

M.D., Rush Medical College, 1900; Interne, Cook County Hospital, Chicago, 1900-01; Pathologist, St. Louis Children's Hospital, 1904-06; Visiting Physician, St. Louis Children's Hospital, 1906-10; Chairman, St. Louis City Hospital Visiting Staff, 1912-14. Acting Professor of Physiology, Washington University Dental School, 1917-18. *Visiting Physician, St. Louis City Hospital.*

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LAWRENCE TYLER POST, M.D. . . . . *Assistant in Clinical Ophthalmology*

A.B., Yale University, 1909; M.D., Johns Hopkins University, 1913; Interne, Johns Hopkins Hospital, 1913-14. Associate in Surgery, South Baltimore Eye, Ear, Nose, and Throat Hospital, 1914-15. *Assistant Ophthalmologist, St. Louis Children's Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

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MARTIN HAYWARD POST, M.D. . . . . *Assistant in Clinical Ophthalmology*

A.B., Amherst College, 1908; M.D., Johns Hopkins University, 1912; Interne, St. Louis City Hospital, 1912-13; Assistant Ophthalmologist, St. Louis Children's Hospital, 1913-14; Member of Staff, St. Luke's Hos-

pital. *Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

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FREDERICK OSCAR SCHWARTZ, M.D. . . . . *Assistant in Clinical Ophthalmology*

M.D., Washington University, 1910. Consulting Oculist, St. Anthony's Hospital. *Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

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ARTHUR EDGAR STRAUSS, M.D. . . . *Assistant in Clinical Medicine*

S.B., Harvard University, 1912, and M.D., 1917; Interne, Massachusetts General Hospital, 1915-16; R. B. Mellon Fellow in Internal Medicine, University of Pittsburgh Medical School, 1916-17; Assistant Visiting Physician, Jewish Hospital; Assistant Visiting Physician, Jewish Home for Chronic Invalids. *Physician to Out Patients, Washington University Dispensary.*

6833 Waterman Avenue

FRANK DE VORE GORHAM, M.D. . . . *Assistant in Clinical Medicine*

A.B., Indiana University, 1910; M.D., Washington University, 1912; Interne, Washington University Hospital, 1912-13; Volunteer Assistant in Medicine, New York Post-Graduate Hospital, 1914; Resident Physician, Private Pavilion, Lenox Hill Hospital, New York City, 1915; Volunteer Assistant in Clinic of Professor Carl Von Noorden, Frankfort A. M., Germany, 1916; Visiting Physician, St. Luke's Hospital and Bethesda Hospital. *Physician to Out Patients, Washington University Dispensary.*

Lister Building

ADOLPH MITCHELL FRANK, M.D. . . *Assistant in Clinical Medicine*

M.D., University of Illinois, 1913; Interne, German Hospital, Chicago, 1913-14. *Physician to Out Patients, Washington University Dispensary.*

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MAX WILLIAM JACOBS, M.D. *Assistant in Clinical Ophthalmology*

A.B., Washington University, 1902; M.D., 1905. Interne, St. Louis City Hospital, 1905-06; Junior Assistant, University Eye Clinic, Vienna, 1910-11; Visiting Oculist, St. Louis City Hospitals, 1912-15. Assistant in Ophthalmology, Jewish Hospital; Visiting Oculist, St. Louis City Sani-



tarium. *Surgeon to Out Patients, Washington University Dispensary, and Visiting Surgeon, St. Louis City Hospital.*

Carleton Building

EUGENE ROBERT VAN METER, M.D. . . . . *Assistant in Clinical Laryngology and Rhinology*

M.D., Washington University, 1905. *Assistant Laryngologist to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

LEON CLIFFORD MCAMIS, M.D. . . . *Assistant in Clinical Surgery*

Ph.B., St. Louis College of Pharmacy, 1899; M.D., Washington University, 1905; Interne, St. Luke's Hospital, 1905-06; Associate Surgeon, Barnard Free Skin and Cancer Hospital, 1917-18. Member of Surgical Staff, St. Luke's Hospital.

Humboldt Building

RAYMOND MILLS SPIVY, M.D. . . . . *Assistant in Clinical Obstetrics*

M.D., Washington University, 1907. Interne, St. Louis City Hospital and St. Luke's Hospital, 1907-08. Chief Physician to St. Louis City Infirmary, 1909-10; Surgeon to Out Patients, Washington University Dispensary, 1919-20; Active Obstetrician, St. Louis Maternity Hospital; Associate in Gynecology, Barnard Free Skin and Cancer Hospital. *Visiting Surgeon, St. Louis City Hospital.*

University Club Building

JOSEPH EDGAR STEWART, M.D. *Assistant in Clinical Orthopedic Surgery*

M.D., University of Pennsylvania, 1914. Assistant Surgeon to Out Patients, Washington University Dispensary, 1915-20. *Clinical Assistant in Orthopedic Surgery to the Barnes Hospital, and Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

JAMES LEWALD, M.D. . . . . *Assistant in Clinical Psychiatry*

M.D., Washington University, 1911; Interne, St. Louis City Hospital, 1911-12. Assistant Physician, St. Louis City Sanitarium, 1912-14; Assistant Superintendent, 1914-20.

5400 Arsenal Street

WELLWOOD MACK NESBIT, M.D. *Assistant in Clinical Laryngology and Rhinology*

M.D., Rush Medical College, 1917. Interne, Presbyterian Hospital, Chicago, 1917-18; Barnes Hospital, 1918. *Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

PARK JERAULD WHITE, JR., M.D. *Assistant in Clinical Pediatrics*

A.B., Harvard University, 1913; M.D., Columbia University, 1917. Interne, New York Hospital, 1917-18; Assistant Physician to Out Patients, Washington University Dispensary, 1919-21. *Physician to Out Patients, Washington University Dispensary.*

5870 Bartmer Avenue

ARTHUR WALTER PROETZ, M.D. *Assistant in Clinical Laryngology and Rhinology, and in Clinical Otology*

A.B., Washington University, 1910, and M.D., 1912. Interne and Resident Assistant, St. Louis City Hospital, 1912-14; Assistant Surgeon to Out Patients in Otology, Washington University Dispensary, 1916-21; Assistant, Out Patient Department, St. Louis Mullanphy Hospital. *Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

CLYDE PERCY DYER, M.D. . . . *Assistant in Clinical Ophthalmology*

A.B., University of Missouri, 1909; M.D., Washington University, 1911. Interne, St. Louis Children's Hospital, 1910-11; Interne and Assistant Resident Physician, St. Louis City Hospital, 1911-13. *Surgeon to Out Patients, Washington University Dispensary.*

Metropolitan Building

OTTO ST. CLAIR KREBS, M.D. . . . *Assistant in Clinical Obstetrics*

B.S., Washington University, 1917, and M.D., 1919. Interne and Assistant Resident Obstetrician and Gynecologist, Barnes Hospital, 1918-20. *Resident Obstetrician and Gynecologist, Barnes Hospital.*

Barnes Hospital

DALTON KEATS ROSE, M.D. *Assistant in Clinical Genito-Urinary Surgery*

M.D., Washington University, 1915. Interne and Assistant Resident, Barnes Hospital, 1915-18; Assistant Surgeon to Out Patients, Washing-

ton University Dispensary, 1919-21. *Surgeon to Out Patients, Washington University Dispensary.*

University Club Building

GROVES BLAKE SMITH, M.D. . . . . *Assistant in Clinical Neurology*

M.D., Columbia University, 1916. Interne, Bellevue Hospital, 1916-17. *Physician to Out Patients, Washington University Dispensary.*

Godfrey, Illinois

HERMAN BENJAMIN MILLER, M.D. *Assistant in Clinical Laryngology and Rhinology*

M.D., Washington University, 1901. Interne, St. Louis City Hospital and St. Louis City Sanitarium, 1901-02; Interne, General Hospital, Vienna, 1902-03. *Surgeon to Out Patients, Washington University Dispensary.*

Metropolitan Building

JOHN ALOYSIUS BORGHOFF, M.D. *Assistant in Clinical Dermatology*

M.D., University of Nebraska, 1920. Interne, Barnard Free Skin and Cancer Hospital.

3427 Washington Avenue

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George Gellhorn, M.D.	} . . . Assistant Gynecologists
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Grandison D. Royston, M.D.	
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Otto St. Clair Krebs, M.D. . . . .	Resident Obstetrician and Gynecologist
Charles D. O'Keefe, M.D. . . . .	Assistant Resident Ob- stetrician and Gynecol- ogist

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Lucius R. Wilson, M.D.		

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Harry W. Lyman, M.D.	}	. . . Assistant Otologists
Isaac D. Kelley, M.D.		
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Meyer Wiener, M.D.	}	. . . Assistant Ophthalmologists
William F. Hardy, M.D.		
Greenfield Sluder, M.D.	. . . . .	Laryngologist
William M. C. Bryan, M.D.	}	. . . Assistant Laryngologists
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Eugene R. Van Meter, M.D.		
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William H. Mook, M.D.	. . . . .	Assistant Dermatologist
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Leland B. Alford, M.D.	. . . . .	Assistant Neurologist
Frank H. Ewerhardt, M.D.	. . . . .	Physician in Charge of Hydro- and Physical Therapeutic Department
R. Walter Mills, M.D.	. . . . .	Roentgenologist
Sherwood Moore, M.D.	. . . . .	Roentgenologist in Charge

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Alfred Goldman, M.D.	. . . . .	Resident Pathologist

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W. McKim Marriott, M.D.	. . . . .	Physician in Chief
Eugene L. Opie, M.D.	. . . . .	Pathologist

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Warren R. Rainey, M.D.		
Charles A. Stone, M.D.		
Glover H. Copher, M.D. . . . .	}	Resident Surgeon
George W. Belcher, M.D.		
Earl C. Padgett, M.D.	}	. . Assistant Resident Surgeons
George B. Garrison, M.D.		
Bransford L. Adelsberger, M.D.	}	. . House Officers
Walter S. Priest, M.D.		

*Special Departments*

John B. Shapleigh, M.D. . . . .	Otologist
Harry W. Lyman, M.D. . . . .	Assistant Otologist
Arthur E. Ewing, M.D. . . . .	Ophthalmologist

Lawrence Post, M.D. . . . .	Assistant Ophthalmologist
Greenfield Sluder, M.D. . . . .	Laryngologist
C. Armin Gundelach, M.D. . . . .	Assistant Laryngologist
Martin F. Engman, M.D. . . . .	Dermatologist
William H. Mook, M.D. . . . .	Assistant Dermatologist
Sidney I. Schwab, M.D. . . . .	Neurologist
John R. Caulk, M.D. . . . .	Urologist
Frank A. McJunkin, M.D. . . . .	} . . Assistant Pathologists
Alfred Goldman, M.D. . . . .	
Roy C. Mallory, D.D.S. . . . .	Dentist

WASHINGTON UNIVERSITY DISPENSARY, OUT-  
PATIENT DEPARTMENT OF THE BARNES  
AND THE ST. LOUIS CHILDREN'S  
HOSPITALS

George Dock, M.D. . . . .	Physician in Chief
Evarts A. Graham, M.D. . . . .	Surgeon in Chief
Henry Schwarz, M.D. . . . .	Obstetrician in Chief
John B. Shapleigh, M.D. . . . .	Otologist in Chief
Greenfield Sluder, M.D. . . . .	Laryngologist in Chief
W. McKim Marriott, M.D. . . . .	Pediatrician in Chief
Martin F. Engman, M.D. . . . .	Dermatologist in Chief
R. Walter Mills, M.D. . . . .	Gastro-Enterologist to Out Patients
Augusta K. Mathieu, R.N. . . . .	Superintendent

*Medicine*

George W. Wilson, M.D. . . . .	Chief of Clinic
--------------------------------	-----------------

General Medical Division

Charles H. Eyermann, M.D. . . . .	Physician in Charge
Jerome E. Cook, M.D. . . . .	} . . . Physicians to Out Patients
Llewellyn Sale, M.D. . . . .	
William H. Olmsted, M.D. . . . .	
Arthur E. Strauss, M.D. . . . .	
Horace H. Shackelford, M.D. . . . .	} . . . Assistant Physicians to Out Patients
Anthony B. Day, M.D. . . . .	

## Gastro-Intestinal Division

Frank D. Gorham, M.D. . . . .	Physician in Charge
Joseph W. Larimore, M.D. . . . .	Physician to Out Patients
Allan A. Gilbert, M.D. . . . .	Assistant Physician to Out Patients

## Tuberculosis Division

Jacob J. Singer, M.D. . . . .	Physician in Charge
Adolph M. Frank, M.D. . . . .	Physician to Out Patients
Adelheid C. Bedal, M.D.	} . . Assistant Physicians to Out Patients
Solon Cameron, M.D.	
Andrew C. Henske, M.D.	

*Surgery*

Arthur O. Fisher, M.D. . . . .	Chief of Clinic
Ernest Sachs, M.D.	} . . Surgeons to Out Patients
Montrose T. Burrows, M.D.	
Barney Brooks, M.D.	
Omar R. Sevin, M.D.	
Edwin P. Lehman, M.D.	
Warren R. Rainey, M.D.	
Forest H. Staley, M.D.	} . . Assistant Surgeons to Out Patients
Henry S. Brookes, Jr., M.D.	
Mynie G. Peterman, M.D.	
Jacob G. Probststein, M.D.	

*Obstetrics and Gynecology*

Grandison D. Royston, M.D. . . .	Chief of Clinic
Otto H. Schwarz, M.D.	} . . Surgeons to Out Patients
Adolph J. Schlosstein, M.D.	
Quitman U. Newell, M.D.	
Frank P. McNalley, M.D.	
Samuel F. Abrams, M.D.	} . . Assistant Surgeons to Out Patients
Treston R. Ayars, M.D.	
E. Lee Dorsett, M.D.	



*Pediatrics*

Philip C. Jeans, M.D.	. . . . .	Chief of Clinic
Jean V. Cooke, M.D.	}	. . Physicians to Out Patients
Adrien S. Bleyer, M.D.		
Hugh McCulloch, M.D.		
Theodore C. Hempelmann, M.D.		
Samuel W. Clausen, M.D.		
Maurice J. Lonsway, M.D.		
Kirsten Utheim, M.D.	}	Assistant Physician to Out Patients
Wayne A. Rupe, M.D.		
Park J. White, M.D.		
Samuel E. Pesetke, M.D.	. . . . .	

*Neurology*

Sidney I. Schwab, M.D.	. . . . .	Chief of Clinic
Leland B. Alford, M.D.	}	. . Physician to Out Patients
James Lewald, M.D.		
Lewis D. Stevenson, M.D.	}	. . Assistant Physicians to Out Patients
Groves B. Smith, M.D.		
Berry C. Marshall, M.D.		

*Dermatology*

William H. Mook, M.D.	. . . . .	Chief of Clinic
Richard Weiss, M.D.	}	. . Physicians to Out Patients
Adolph H. Conrad, M.D.		
William G. Coleman, M.D.	}	. . Assistant Physicians to Out Patients
William D. Davis, M.D.		
George D. Stilson, M.D.		

*Orthopedic Surgery*

Nathaniel Allison, M.D.	. . . . .	Chief of Clinic
J. Archer O'Reilly, M.D.	}	. . Surgeons to Out Patients
Charles A. Stone, M.D.		
J. Edgar Stewart, M.D.		
Theodore P. Brookes, M.D.	. . . . .	Assistant Surgeon to Out Patients

*Ophthalmology*

Arthur E. Ewing, M.D. . . . .	Chief of Clinic
Meyer Wiener, M.D.	} . . Surgeons to Out Patients
William E. Shahan, M.D.	
William F. Hardy, M.D.	
Frederick O. Schwartz, M.D.	
Harvey D. Lamb, M.D.	
M. Hayward Post, M.D.	
Lawrence Post, M.D.	
Max W. Jacobs, M.D.	
Clyde P. Dyer, M.D.	} . . Assistant Surgeons to Out Patients
Dorcas F. Meadows, M.D.	
Amalie M. Napier, M.D.	
Leverett H. Crapp, M.D.	
Guy H. Hopkins, M.D.	
Bennett Y. Alvis, M.D.	

*Otology*

Harry W. Lyman, M.D. . . . .	Chief of Clinic
Millard F. Arbuckle, M.D.	} . . Surgeons to Out Patients
Isaac D. Kelley, M.D.	
Arthur W. Proetz, M.D.	
Charles L. Davis, M.D.	} . . Assistant Surgeons to Out Patients
William L. Hanson, M.D.	
Wellwood M. Nesbit, M.D.	

*Laryngology*

William M. C. Bryan, M.D. . . . .	Chief of Clinic
Millard F. Arbuckle, M.D.	} . . Surgeons to Out Patients
Eugene R. Van Meter, M.D.	
Wellwood M. Nesbit, M.D.	
Arthur W. Proetz, M.D.	
Herman B. Miller, M.D.	

Richard J. Payne, M.D.	}	. . Assistant Surgeons to Out Patients
Ulysses S. Short, M.D.		
Lemuel B. Short, M.D.		
Edward H. Lane, M.D.		
August Dutzi, M.D.		
William F. A. Schultz, M.D.		
Charles L. Davis, M.D.		
William L. Hanson, M.D.		

#### *Genito-Urinary Surgery*

John R. Caulk, M.D. . . . .	Chief of Clinic
Harry G. Greditzer, M.D.	} . . Surgeons to Out Patients
Dalton K. Rose, M.D.	
Newton W. Amos, M.D.	
Otto J. Wilhelmi, M.D.	} . . Assistant Surgeons to Out Patients
Royal Tharp, M.D.	
Emmett W. McBratney, M.D.	

#### *Dentistry*

William B. Spotts, D.D.S. . . . .	Dentist to Out Patients
E. Alfred Marquard, D.D.S. . . . .	Assistant Dentist to Out Patients

#### WASHINGTON UNIVERSITY TRAINING SCHOOL FOR NURSES

Helen Wood, A.B., R.N. . . . .	Director of the School and Superintendent of Nurses
Helen O. Potter, R.N. . . . .	Assistant Superintendent of Nurses
Susie A. Watson, B.S., R.N. . . . .	Theoretical Instructor
Minnola Stallings, R.N. . . . .	Practical Instructor

#### SOCIAL SERVICE

Agnes G. Deans, R.N. . . . .	Director
Mrs. Berenice L. Marshall . . . . .	Assistant
Alice C. Slater, R.N. . . . .	Assistant

## THE ST. LOUIS CITY HOSPITAL No. 2

Visiting Physicians and Surgeons to the City Hospital No. 2\* and other City institutions are designated by Washington University as follows:

*Medicine*

George Dock, M.D. . . . .	Consulting Physician
Drew W. Luten, M.D. . . . .	Chief of Staff
Albert E. Taussig, M.D.	} . . Associate Physicians
Jerome E. Cook, M.D.	
Walter Fischel, M.D.	
Llewellyn Sale, M.D.	
Oliver H. Campbell, M.D.	
Lionel S. Luton, M.D.	
Raleigh K. Andrews, M.D.	

*Surgery*

Evarts A. Graham, M.D. . . . .	Consulting Surgeon
Warren R. Rainey, M.D. . . . .	Chief of Staff
Walter C. G. Kirchner, M.D.	} . . Associate Surgeons
Charles E. Hyndman, M.D.	
Ellis Fischel, M.D.	
Edwin P. Lehman, M.D.	

*Obstetrics and Gynecology*

Henry Schwarz, M.D. . . . .	Consulting Surgeon
George Gellhorn, M.D. . . . .	Chief of Staff
Fred J. Taussig, M.D.	} . . Associate Surgeons
William Kerwin, M.D.	
Raymond M. Spivy, M.D.	

*Pediatrics*

W. McKim Marriott, M.D.	} . . Consulting Physicians
Borden S. Veeder, M.D.	
Theodore C. Hempelmann, M.D. . .	Chief of Staff
Adrien S. Bleyer, M.D. . . . .	Associate Physician

\* Appointed by the city upon nomination of the University.

*Neurology*

Sidney I. Schwab, M.D. . . . . Consulting Physician  
Leland B. Alford, M.D. . . . . Associate Physician

*Dermatology*

Martin F. Engman, M.D. . . . . Chief of Staff  
Richard S. Weiss, M.D. . . . . Associate Physician

*Ophthalmology*

Meyer Wiener, M.D. . . . . Chief of Staff  
William F. Hardy, M.D. . . . . Acting Chief of Staff  
M. Hayward Post, M.D.                    }  
Max W. Jacobs, M.D.                    } . . Associate Surgeons  
Frederick O. Schwartz, M.D.            }

*Laryngology and Otology*

William E. Sauer, M.D. . . . . Chief of Staff  
Walter L. Johnson, M.D.                   }  
Stanley S. Burns, M.D.                    } . . Associate Surgeons  
George E. Hourn, M.D.                    }

*Orthopedic Surgery*

Archer O'Reilly, M.D. . . . . Chief of Staff  
Charles A. Stone, M.D.                   }  
J. Edgar Stewart, M.D.                   } . . Associate Surgeons

*Genito-Urinary Surgery*

William M. Robertson, M.D. . . . . Chief of Staff  
H. McClure Young, M.D. . . . . Associate Surgeon

*Stomatology*

James A. Brown, D.D.S. . . . . Dentist  
R. S. Murdock, D.D.S. . . . . Associate Dentist

*Pathology*

William A. Hudson, M.D. . . . . Pathologist

## INFECTIOUS DISEASE HOSPITAL

W. McKim Marriott, M.D.	}	. . Consulting Physicians
Borden S. Veeder, M.D.		
Theodore C. Hempelmann, M.D.		. . Chief of Staff
Philip C. Jeans, M.D.	}	. . Associate Physicians
Phelps G. Hurford, M.D.		
George M. Tuttle, M.D.		

## CITY SANITARIUM

Sidney I. Schwab, M.D.	. . . . . Consulting Physician
Ernest Sachs, M.D.	. . . . . Consulting Surgeon
Leland B. Alford, M.D.	. . . . . Associate Physician



## STUDENTS, 1920

## STUDENTS ATTENDING GRADUATE AND SPECIAL COURSES

Ball, Ernest .....	Tampico, Mex.
M.D., Dallas Med. Coll., '04.	
Camp, George Hull.....	Springfield, Mo.
B.S., Westminster Coll., '15.	
M.D., Emory Univ., '19.	
Ferris, David Patrick.....	Fulda, Minn.
M.D., St. Louis Univ., '17.	
Goss, Orville Roscoe.....	Berkeley, Cal.
B.S., Univ. of Cal., '13.	
M.D., Univ. of Cal., '16.	
Holtom, Benjamin George.....	Battle Creek, Mich.
B.S., Univ. of Mich., '17.	
M.D., Univ. of Mich., '17.	
Hood, Marshall Henry.....	Portsmouth, Va.
M.D., Med. Coll. of Va., '17.	
Locy, Francis Eastman.....	Evanston, Ill.
B.S., Northwestern Univ., '13.	
M.D., Northwestern Univ., '15.	
McIntire, Ross T.....	Salem, Ore.
M.D., Univ. of Ore., '12.	
Smith, Leslie McKnight.....	Marlin, Tex.
M.D., Vanderbilt Univ., '17.	
Spruance, Horace Evans.....	Smyrna, Del.
A.B., Delaware Coll., '11.	
M.D., Jefferson Med. Coll., '15.	
Welch, Robert Sellman Gray.....	U. S. Navy
M.D., Univ. of Md., '17.	
Whiteside, Edwin Eugene.....	Cape Girardeau, Mo.
A.B., Central Coll., '97.	
A.M., Central Coll., '01.	
M.D., Barnes Med. Coll., '07.	
	Total, 12

## FOURTH YEAR CLASS.

Balazs, Karl John.....	St. Louis, Mo.
B.S., Washington Univ., '19.	
Blasdel, Harry Emert.....	Hutchinson, Kan.
A.B., Univ. of Kan., '19.	
Bunch, Harold McKinley.....	Atlanta, Mo.
A.B., Univ. of Mo., '19.	
Carr, Archie Dreyfus.....	St. Louis, Mo.
B.S., Washington Univ., '18.	
Cashatt, Faye.....	Coon Rapids, Iowa
A.B., Univ. of S. D., '19.	
Chamberlain, Iris McKy.....	Springfield, Mo.
Christensen, Grover Ell.....	Moreni, Utah
B.S., Univ. of Utah, '19.	
Cohen, Louis.....	St. Louis, Mo.
B.S., Washington Univ., '19.	
Conklin, Tracy Roscoe, Jr.....	Abilene, Kan.
B.S., Univ. of Kan., '19.	
Cooper, Dewey Hobson.....	St. Louis, Mo.
Coughlin, Albert Neville.....	St. Louis, Mo.
A.B., Univ. of Mo., '19.	
Evans, Joseph Patton.....	Meridian, Miss.
B.S., Univ. of Miss., '18.	
Evans, Lester J.....	St. Louis, Mo.
Gruber, Charles Merl Michael.....	Lawrence, Kan.
A.B., Univ. of Kan., '11.	
A.M., Univ. of Kan., '12.	
Ph.D., Harvard Univ., '14.	
Haddox, Charles Hugh.....	Pawnee, Okla.
A.B., Univ. of Kan., '19.	
Hartmann, Alexis Frank.....	St. Louis, Mo.
B.S., Washington Univ., '19.	
Indenbaum, Samuel.....	Phoenix, Ariz.
A.B., Univ. of Mo., '19.	

Joannides, Minas.....	Chicago, Ill.
Kahn, Samuel Herman.....	Dallas, Tex.
Kirksey, William Albert.....	Morgantown, N. C.
A.B., Univ. of N. C., '13.	
Kleinschmidt, Ralph Edwin.....	St. Louis, Mo.
Klemme, Roland Metzler.....	Belleville, Ill.
Lewis, William Benjamin.....	Granite City, Ill.
Lohr, Oliver Willison.....	St. Louis, Mo.
Lowrey, Ford Jackson.....	Kansas City, Mo.
A.B., Univ. of Mo., '19.	
McIntosh, Roscoe Lyle.....	Edgerton, Wis.
B.S., Univ. of Wis., '19.	
McKitterick, John Collins.....	Burlington, Iowa
B.S., Washington Univ., '19.	
Malone, Julian Yerkes.....	St. Louis, Mo.
A.B., Ripon Coll., '15.	
M.S., Univ. of Wis., '17.	
Martin, Wilfred Everett.....	Lawrence, Kan.
B.S., Univ. of Kan., '19.	
Michael, William Alexander.....	Braymer, Mo.
Nelsen, Millard Tarsten.....	Vale, Ore.
Paddock, Richard.....	Terre Haute, Ind.
Probert, William Henry.....	St. Louis, Mo.
A.B., Westminster Coll., '17.	
Pyne, Herbert Samuel, Jr.....	Provo City, Utah
Rees, Maurice Holmes.....	Tarkio, Mo.
A.B., Monmouth Coll., '04.	
A.M., Univ. of Ill., '05.	
Ph.D., Univ. of Chicago, '17.	
Reitz, Thomas Frederick.....	Evansville, Ind.
B.S., Ind. Univ., '19.	
Rusk, Harvey Schenck.....	Brookfield, Mo.
Sherburne, Clifford Clare.....	Newark, Ohio
B.S., Denison Univ., '18.	
Showman, Winfred Aaron.....	Hoxie, Ark.
A.B., Univ. of Mo., '19.	
Simpson, Eber Edward, Jr.....	Oshkosh, Wis.
B.S., Univ. of Wis., '18.	
Spinzig, Edgar Walter.....	St. Louis, Mo.
B.S., Washington Univ., '19.	
Summers, Caldwell Blanford.....	Harrisonville, Mo.
Vogel, Eugene August.....	St. Louis, Mo.
A.B., Univ. of Mo., '19.	
Wise, David Clarence.....	Carthage, Mo.
A.B., Leland Stanford Jr. Univ., '18.	
Zink, Oscar Charles.....	Belleville, Ill.
	Total, 45

## THIRD YEAR CLASS

Baum, William Wells.....	Shelbyville, Ill.
Bersche, Bertram Louis Jacob.....	Columbia, Ill.
B.S., Washington Univ., '20.	
Bohrer, Eldon Claude.....	West Plains, Mo.
A.B., Univ. of Mo., '20.	
Briggs, Alfred Poyneer.....	Dixon, Cal.
B.S., Univ. of Colo., '12.	
Cady, Lee Dee.....	Utica, Mo.
A.B., Univ. of Mo., '18.	
Campbell, Leon George.....	Pasadena, Cal.
Canepa, Francis John.....	St. Louis, Mo.
Chamberlain, Gilbert Lee.....	Murphysboro, Ill.
A.B., Univ. of Mo., '20.	
Chouke, Kehar Singh.....	Ludhiana, India
H.A., Agra Med. Sch., '06.	
Cole, Carol Skinner.....	St. Louis, Mo.
Connell, John William.....	Fond du Lac, Wis.
Costen, James Bray.....	Paragould, Ark.
A.B., Univ. of Ark., '16.	
Deakin, Vincil Rogers.....	St. Joseph, Mo.
Delaney, Oscar Minton.....	Wharton, N. J.
Dickson, Green Knowlton.....	Walters, Okla.
B.S., Okla. Agri. and Mech. Coll., '17.	
Dieckmann, William Joseph.....	St. Louis, Mo.
B.S., Washington Univ., '20.	

Duncan, Perry Emory.....	University, Miss.
B.S., Univ. of Miss., '17.	
Eskeles, Irwin Herman.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Esserman, Arthur Losos.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Fleming, Samuel Ward.....	Farmington, Mo.
Hanser, Theodore Henry.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Harper, Henry Winston, Jr.....	Austin, Tex.
A.B., Univ. of Mo., '19.	
Hofsommer, Armin Conrad.....	Breese, Ill.
Hoover, Walter Boyd.....	Trenton, Mo.
Jannopoulos, Aphrodite Maria.....	Webster Groves, Mo.
A.B., Washington Univ., '18.	
Johnson, Walfred.....	Worcester, Mass.
A.B., Univ. of S. D., '19.	
Jostad, Odmund.....	Colton, S. D.
A.B., Univ. of S. D., '20.	
Keeble, Charles Burton.....	St. Louis, Mo.
Krumm, John Frederick.....	Chicago, Ill.
B.S., Univ. of Wis., '20.	
Lasersohn, Martin.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Lohr, Curtis Harry.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Martin, Kirby Armstrong.....	Hamilton, N. D.
Norton, William Hudson.....	Troy, Mo.
A.B., Univ. of Mo., '19.	
Pittman, John Edward.....	Sedalia, Mo.
A.B., Univ. of Mo., '20.	
Post, Winfred Luscombe.....	Carthage, Mo.
A.B., Univ. of Mo., '20.	
Reed, Carl Henry.....	Excelsior Springs, Mo.
A.B., Univ. of Mo., '20.	
Rice, Justus Bulkley.....	St. Louis, Mo.
Schindewolf, Theodore Eccarius.....	St. Louis, Mo.
Sheldon, Paul Benedict.....	St. Louis, Mo.
A.B., Oberlin Coll., '17.	
Shrader, Eugene Lee.....	Moberly, Mo.
A.B., Univ. of Mo., '20.	
Smith, Gervais Dean.....	Walnut Grove, Mo.
Sultzman, Francis Eugene.....	Hannibal, Mo.
A.B., Univ. of Mo., '20.	
Tremain, Irl George.....	Maplewood, Mo.
Wall, Albert.....	St. Louis, Mo.
Weymann, Morie Frederick.....	St. Joseph, Mo.
Wiese, Harry William.....	St. Louis, Mo.
B.S., Washington Univ., '20.	
Wu, Chin-Sheng.....	Amoy, China
B.S., Univ. of Chicago, '20.	Total. 47

## SECOND YEAR CLASS

Abel, Oliver, Jr.....	St. Louis, Mo.
Aselmeyer, Alfred John.....	Boonville, Mo.
Batts, Jett McCormick.....	Norfolk, Va.
Becke, William George.....	St. Louis, Mo.
Beissel, Samuel West.....	Southwest City, Mo.
Berg, David Tormod.....	Helena, Mont.
Bierman, Max John.....	St. Louis, Mo.
Boyden, Alphonzo Webster.....	Issaquah, Wash.
Breckenridge, Elmer Oesterle.....	St. Louis, Mo.
Broeder, William Hugo.....	St. Louis, Mo.
Corson, Harold Fee.....	Springfield, Ill.
Deutsch, Hans.....	Vienna, Austria
Ph.B., Yale Univ., '17.	
Fleming, Forest Elroy.....	Los Angeles, Cal.
Garrison, George Harry.....	White Hall, Ill.
A.B., Univ. of Ill., '20.	
Harris, John Harold.....	Kiowa, Kan.
A.B., Southwestern Coll., '20.	
Hawkins, Thomas Lee.....	Helena, Mont.
Heideman, Milo Lawrence.....	St. Louis, Mo.
A.B., Washington Univ., '18.	
Higgins, Charles Clair.....	Huron, S. D.

Irick, Carl Cuthbert.....	Hadley, Ill.
Jorstad, Louis Helmar.....	Morris, Ill.
Le Vine, Davis.....	Kansas City, Mo.
Margrave, Edmund De Lolme.....	St. Louis, Mo.
B.S., Univ. of Cal., '14.	
Senturia, Ben Druze.....	St. Louis, Mo.
Skelton, Neva.....	Eldorado, Ill.
B.S., McKendree Coll., '19.	
Smith, Dudley Reeves.....	Southwest City, Mo.
Smith, Leslie Albert.....	Logan, Utah
B.S., Agri. Coll. of Utah, '13.	
Stahl, Phineas David.....	St. Louis, Mo.
Stuebner, Roland William.....	St. Joseph, Mo.
Teel, Charles Edmond.....	Bellingham, Wash.
Thompson, John William, Jr.....	Granite City, Ill.
Ulmer, Walter Pierce.....	Dawson, Neb.
B.S., Western Union Coll., '19.	
Ulrich, Henry John.....	St. Louis, Mo.
Webb, Paul Kingsley.....	St. Louis, Mo.
Williams, John Wood, Jr.....	Springfield, Mo.
Wilson, Kenneth Oscar.....	St. Louis, Mo.
Wimber, Thomas Charles.....	Alton, Ill.
	Total, 36

## FIRST YEAR CLASS

Adams, Alfred Oliver.....	West Plains, Mo.
Anderson, Charles Elliott.....	Los Angeles, Cal.
Auer, Eugene Solomon.....	St. Louis, Mo.
Baskett, Roy F.....	Holton, Kan.
Beasley, Charles Henderson.....	East St. Louis, Ill.
Beckmann, Jacob William.....	St. Louis, Mo.
A.B., Univ. of Mich., '20.	
Bindbeutel, Arthur Henry.....	St. Louis, Mo.
Bowen, Charles Grafton.....	Independence, Kan.
A.B., Baker Univ., '20.	
Chamberlain, Warren W.....	Malvern, Ark.
B.S., Henderson-Brown Coll., '20.	
Colgate, Cleon Edward.....	Madison, Ind.
A.B., Hanover Coll., '16.	
Cooper, Henry Sage Fenimore.....	St. Louis, Mo.
A.B., Yale Univ., '17.	
Crank, Rawser Paul.....	Greenfield, Mo.
Crisostomo, Francisco.....	Malolos, Bul., P. I.
Darrough, Lawrence Earl.....	Carbondale, Ill.
Davis, Harry Joseph.....	Topeka, Kan.
Delicate, Henry Brinkmann.....	Edwardsville, Ill.
Dyer, Martha Emily.....	St. Louis, Mo.
A.B., Washington Univ., '20.	
Efferding, Floyd Victor.....	Dubuque, Iowa
Ehrlich, Ralph Louis.....	St. Louis, Mo.
Farrall, Byron Huntley.....	Oberlin, Ohio
A.B., Oberlin Coll., '20.	
Fuson, William Arthur.....	Bogota, Ill.
Graubarth, Julian.....	Las Vegas, N. M.
Halley, Edward.....	Edwardsville, Ill.
Harris, Everett Grant.....	Festus, Mo.
A.B., Trinity Coll., '17.	
Holmes, Arthur Jinny.....	Webster Groves, Mo.
Howze, Herbert Hardy.....	Malvern, Ark.
Jacoby, James Alexander.....	Burlington, Iowa
Johnson, Obbo William.....	St. Louis, Mo.
A.B., Univ. of Dubuque, '20.	
Johnson, Scott.....	St. Louis, Mo.
Kaplan, Edward Emanuel.....	St. Louis, Mo.
Katz, Frank.....	New York, N. Y.
Kengle, George Lewis.....	Enid, Okla.
Knox, Lawrence Mountjoy.....	Little Rock, Ark.
A.B., Transylvania Coll., '20.	
Leidig, Lawrence Robert.....	Burlington, Iowa
Leuschner, Curt Ernest.....	Belleville, Ill.
Lewis, Claud.....	Bible Grove, Ill.
Lipsitz, Ben Garrison.....	St. Louis, Mo.
Moore, Jean Wall.....	Olney, Ill.
Phillips, Herbert Lester.....	Peru, Ill.
Pratte, Paul Kendall.....	St. Louis, Mo.

Roberts, Samuel Jennings.....	De Kalb, Mo.
Rountree, Charles Ross.....	Springfield, Mo.
B.S., Drury Coll., '20.	
Rumph, William Verne, Jr.....	Fort Worth, Tex.
Satterfield, Val Beyer.....	St. Louis, Mo.
Saunders, Edward Watts.....	Seattle, Wash.
Shearer, Beryl Cecil.....	Winfield, Iowa
B.S., Parsons Coll., '20.	
Shilling, Jerome Warren.....	Los Angeles, Cal.
Siebert, Walter Joseph.....	St. Louis, Mo.
Sigoloff, Emanuel.....	St. Louis, Mo.
Smith, James Dismukes, Jr.....	Nelson, Mo.
Smith, John Raymond.....	Delaware, Ohio
A.B., Ohio Wes. Univ., '18.	
Smith, Stuart Gross.....	Springfield, Ill.
Stahr, Roland Winfred.....	Topeka, Kan.
Tedstrom, Milo Kenney.....	Pine Bluff, Ark.
Thompson, David Gilmore.....	Trinidad, Colo.
Vitt, Edwin Fischer.....	St. Louis, Mo.
Wangelin, Evans Hugo.....	Belleville, Ill.
Weinel, Francis Gustave.....	St. Louis, Mo.
Whitsell, Ora Earl.....	St. Joseph, Mo.
A.A., St. Joseph Jr. Coll., '20.	
Wood, John Andrew.....	Ashdown, Ark.
	Total, 60

## SUMMARY OF STUDENTS IN THE SCHOOL OF MEDICINE

Graduate and Special Students.....	12
Fourth Year Class.....	45
Third Year Class.....	47
Second Year Class.....	36
First Year Class.....	60
	Total, 200



## DEGREES CONFERRED

The degree of Doctor of Medicine was conferred upon the following, June 10, 1920:

Adelsberger, Bransford Louis.....	Waterloo, Ill.
Andrae, Robert Lee.....	St. Louis
Asami, Goichi .....	Yamaguchi, Japan
A.B., Leland Stanford Jr. Univ., '17.	
Barker, Paul Shirmer.....	St. Louis
A.B., Westminster Coll., '15.	
Black, Carl Ellsworth, Jr.....	Jacksonville, Ill.
A.B., Ill. Coll., '16.	
Briggs, Clifton H.....	Emporia, Kan.
Carlisle, John Bertche.....	Sedalia, Mo.
A.B., Univ. of Mo., '18.	
Carter, William Stokely.....	Trenton, Ill.
Champlin, Paul Bertrand.....	Canton, Kan.
B.S., Univ. of Kan., '18.	
Cole, Warren Henry.....	Clay Center, Kan.
B.S., Univ. of Kan., '18.	
Fancher, Charles Rousseau.....	Modesto, Cal.
A.B., Leland Stanford Jr. Univ., '17.	
Gaebe, Harold Carl.....	Farmington, Mo.
B.S., Washington Univ., '18.	
Goldman, Alfred .....	St. Louis
A.B., Washington Univ., '16.	
Grant, Samuel Becker.....	St. Louis
B.S., Washington Univ., '18.	
Hopkins, Guy Huskinson.....	Grand Junction, Colo.
A.B., Colo. Coll., '15.	
Hudson, William Andrew.....	Jasper, Ark.
B.S., Washington Univ., '18.	
Jenkins, William Nathan.....	Crystal Springs, Miss.
B.S., Ala. Pres. Coll., '16.	
Jostes, Frederick Augustus.....	St. Louis
B.S., Washington Univ., '18.	



- Kennedy, Patrick Harlan.....Youngstown, Ohio  
B.S., Washington Univ., '18.
- Liggett, Hiram Shaw.....St. Louis
- Lohrentz, Abraham Martens.....Moundridge, Kan.  
A.B., Bethel Coll., '16.  
B.S., Univ. of Kan., '18.
- Meyer, Herman Moses.....Linneus, Mo.
- Moore, Walter Roger.....Olathe, Kan.
- Ochsner, Edward William Alton.....Kimball, S. D.  
A.B., Univ. of S. D., '18.
- Owen, Leonard Joseph.....Colorado Springs, Colo.
- Penick, Grider .....Marshall, Mo.  
A.B., Mo. Val. Coll., '15.
- Peterman, Mynie Gustav.....Merrill, Wis.  
B.S., Univ. of Wis., '18.
- Potter, Lee George.....Mountain Grove, Mo.  
A.B., Univ. of Mo., '17.
- Priest, Walter Scott, Jr.....Wichita, Kan.  
A.B., Univ. of Kan., '17.
- Rice, Carl Epler.....Plainville, Ill.  
A.B., Univ. of Mo., '18.
- Rudolph, Royal William.....Canton, S. D.  
A.B., Univ. of S. D., '18.
- Rumreich, Adolph Sylvester.....Pisek, N. D.  
A.B., Univ. of N. D., '17.
- Schenck, Fred Gerald.....Burlingame, Kan.
- Schiek, Charles Melvin.....Freeburg, Ill.
- Schneiderman, Henry .....Kansas City, Mo.  
A.B., Univ. of Mo., '18.
- Waller, Riley Moore.....Faucett, Mo.  
A.B., Univ. of Mo., '18.
- Wellmerling, Hermann William.....Bloomington, Ill.  
B.S., Ill. Wesleyan Univ., '16.
- White, Harvey Lester.....Jacksonville, Ill.  
B.S., Washington Univ., '18.

White, Marcus Demosthenes.....Palmyra, Mo.  
Williams, John Webster.....Milwaukee, Wis.  
    B.S., Cornell Univ., '18.  
Williams, Lester Leo.....Winfield, Kan.  
Wilson, Lucius Roy.....Jonesburg, Mo.  
    A.B., Univ. of Mo., '18.

GRADUATES APPOINTED TO THE BARNES HOSPITAL  
AND THE ST. LOUIS CHILDREN'S HOSPITAL

*Medical Service*

Frederick Augustus Jostes      Edward William Alton Ochsner  
    Royal William Rudolph

*Surgical Service*

Bransford Louis Adelsberger      Clifton H. Briggs  
    Walter Scott Priest

*Obstetrical Service*

John Bertche Carlisle      Marcus Demosthenes White  
Patrick Harlan Kennedy      Lucius Roy Wilson

*Pediatric Service*

Walter Roger Moore      Harvey Lester White

*Pathological Service*

Alfred Goldman

## GENERAL STATEMENT

### HISTORY AND ORGANIZATION

The Medical Department of Washington University, called in 1909 the Washington University Medical School, continues the work of the St. Louis Medical College and the Missouri Medical College, the two oldest medical schools west of the Mississippi River. In 1918 the name was changed by the Corporation to Washington University School of Medicine.

The Medical Department of Kemper College of St. Louis was organized in 1840; in 1845 it became the Medical Department of the University of the State of Missouri. By change of its charter in 1855, it was made an independent institution known as the Missouri Medical College. The work of the School was discontinued in 1862, but was resumed in 1865 at the end of the Civil War.

The Medical Department of St. Louis University, founded in 1842, was chartered as an independent institution in 1855 under the name of the St. Louis Medical College.

The Medical Department of Washington University was created by the Corporation in 1891, when the St. Louis Medical College became a part of Washington University. In 1899 the Missouri Medical College was merged with this department.

Graduates of the St. Louis Medical College number 2125; of the Missouri Medical College, 2915; and of the Medical Department of Washington University, 872.

In 1910 the Corporation of the University, appreciating the value of the service which a medical school can give to the community, with the coöperation of the Medical Faculty, reorganized the School in all departments and appointed heads of departments and instructors in anatomy, physiology, biological chemistry, pathology, medicine, surgery, and pediatrics, who devote themselves to teaching and research, and associated with this staff clinical instructors chosen from the medical profession of St. Louis. These changes were made with the aid of funds donated by philanthropic citizens of St. Louis.

In 1916 the sum of one and one-half million dollars was contributed to the School of Medicine by the General Educa-

tion Board, Mr. John T. Milliken, Mrs. Mary Culver and Mr. Edward Mallinckrodt. This sum has been divided into three equal parts designated as the John T. Milliken Fund for the Endowment of Clinical Teaching and Research in Medicine, the Mary Culver Fund for the Endowment of Clinical Teaching and Research in Surgery, and the Edward Mallinckrodt Fund for the Endowment of Clinical Teaching and Research in Pediatrics, respectively, and the income is devoted to the support of the departments named.

These endowments have enabled the School of Medicine to place the clinical departments of Medicine, Surgery, and Pediatrics upon the full university basis, under the direction and control of men devoting all of their time to university work. With them are associated practitioners of medicine giving part time to the work of the School of Medicine. In 1919, the Department of Pharmacology was placed on a full university basis by an endowment for that department of three hundred thousand dollars, half of which was contributed by the General Education Board and half by a friend of the University.

An affiliation has been established between the Barnes Hospital and the St. Louis Children's Hospital and Washington University, by which the University agrees to provide the medical staffs of the hospitals, and the hospitals agree to permit the University to use the hospitals for purposes of teaching and research. These hospitals have erected buildings on Kingshighway overlooking Forest Park, which became available for use in the autumn of 1914. Adjacent to the hospital buildings, a dispensary and large, thoroughly equipped laboratories have been built (see below). This close association enables the teaching staff of the University to give laboratory and clinical instruction, and to conduct and direct research in all branches of medicine in a single compact plant.

#### THE BUILDINGS OF THE SCHOOL OF MEDICINE

The three buildings of the School of Medicine are connected by corridor and tunnel with the Barnes Hospital and the St. Louis Children's Hospital. They are the Building for the Dispensary and Hospital Laboratories, the North Laboratory Building and the South Laboratory Building.

THE BUILDING FOR THE DISPENSARY AND HOSPITAL LABORATORIES is situated at the northeast corner of the hospital lot. The Dispensary occupies the first floor and basement, the Laboratory of Internal Medicine the second floor, and the Department of Pathology the upper two floors, together with a western extension of the building connecting it with the Barnes Hospital, and containing the mortuary and the autopsy amphitheatre.

THE NORTH LABORATORY BUILDING on Euclid avenue opposite the Barnes Hospital contains the administrative offices of the School of Medicine, the Assembly Hall, the Library, and the Departments of Experimental Surgery, Comparative Pathology, and Anatomy.

THE SOUTH LABORATORY BUILDING is connected by corridor with the North Laboratory Building. It accommodates the Departments of Biological Chemistry, Pharmacology, and Physiology.

Unit systems prevail in the general construction of these buildings, and so far as advantageous in the fixtures and furnishings. Provision is made in all lecture rooms for the different methods of optical projection and for demonstrations involving the use of gas, water, electricity, and compressed air. Research laboratories and technicians' rooms are provided with forced-draft hoods, electricity, steam, and apparatus for controlling temperature. The attic space is utilized for the assembling of the air ducts from the chemical hoods and for the electric fans operating the draught. A steam still and tin-lined tanks for distilled water are located here, with block-tin pipes running from the tanks to the basement, with openings on each floor.

#### NURSES' HOME

This building is located on Kingshighway facing Forest Park, and just north of the Children's Hospital. It is of concrete construction and fire-proof. On the first floor are a large reception room, a class room, and administrative offices. The upper floors are arranged to accommodate 70 nurses.

A recently finished addition gives a capacity for 60 more nurses.



## POWER PLANT

The power plant is located east of Euclid avenue and north of the North Laboratory Building. It furnishes light, heat, power, refrigeration, and compressed air to the buildings of the School of Medicine, the Dispensary, the Barnes Hospital, and the St. Louis Children's Hospital.

## LIBRARY

The Library contains (October 1, 1920) 30,011 bound volumes and receives 424 of the most important medical periodicals, selected with reference to the needs of students and investigators. Of these 381 are in complete series. Including obsolete journals, there are 446 complete sets.

The Library is open week days from 8:30 A.M. to 10:00 P.M., except Saturdays, 8:30 to 6:00. In summer vacation the hours are 8:30 A.M. to 5:00 P.M.

The stacks are open to readers. In the stack rooms every other stack has a table at the window end. There are also three study rooms where books can be placed for investigators.

The Library has been enriched by the acquisition of several private collections. Among these are the library of the late Julius Pagel, Professor of the History of Medicine at the University of Berlin, the gift of the late Mrs. Benjamin Brown Graham of St. Louis. This comprises about twenty-five hundred titles, including many works on the history of medicine, medical biography, bibliography, terminology, medical sociology, and ethics. There is also the fine collection of the late Dr. John Green of periodicals and books relating to ophthalmology; that of the late Dr. W. E. Fischel, on internal medicine, and the library of the late Dr. Frank J. Lutz, Clinical Professor of Surgery, containing many valuable works on anatomy, surgery, medical history, and biography.

The Beaumont Room, adjoining the main reading room, contains manuscripts, letters, and other valuable material of the pioneer American physiologist, William Beaumont, presented to the University by his granddaughter, the late Lily Beaumont Irwin. The original notes made during the investigations on the stomach of Alexis St. Martin form part of the collection. Here also may be seen the portrait of Beaumont by Chester Harding.



Other libraries in St. Louis containing literature relating to medicine, which are available to students, either directly or through the Library of the School, are the following:

The Library of Washington University, Skinker road.

The St. Louis Medical Library, 3525 Pine street.

The St. Louis Public Library, Olive and Fourteenth streets.

The Library of the Missouri Botanical Garden, Shenandoah and Tower Grove avenues.

The Mercantile Library, Broadway and Locust street.

#### MUSEUMS AND COLLECTIONS

In the Department of Anatomy there is a museum for teaching and a collection of material used in investigation. The museum is combined with the class laboratories in order that specimens may be studied during class periods, as well as at other times. The present small group of anatomical preparations is the beginning of a museum planned to develop in a definite way. It comprises type specimens of adult organs and organic systems, specimens presenting variations, and preparations illustrating development. The collection contains an extensive series of osteological preparations, including a group of Indian crania and other material for anthropological study, vertebrate types, and microscopical sections, embryos, and models.

The Museum of Pathology contains specimens prepared and catalogued for use in the teaching of pathological anatomy. Specimens needed by any department of the School for demonstrations or lectures may be obtained from the museum under regulations similar to those in force in the Library. The Departments of Surgery and of Obstetrics and Gynecology have aided in the collection of material suitable for the teaching of these subjects and other special departments have the opportunity to cooperate in making similar collections. Diseases of bones are well illustrated by a large number of specimens collected during the early history of the School by Dr. Charles A. Pope and Dr. John T. Hodgen. A section of the museum contains experimental pathological lesions.

#### MEDICAL BULLETIN OF WASHINGTON UNIVERSITY

*The Medical Bulletin* contains the transactions of the Wash-

ington University Medical Society. Its distribution is limited, at present, to the libraries of medical schools and certain other scientific institutions.

#### WASHINGTON UNIVERSITY MEDICAL SOCIETY

The Washington University Medical Society is conducted to promote the advance of medicine in the University and in the hospitals affiliated with it by the report and discussion of investigations undertaken in the laboratories and hospitals. Meetings are held on the second Monday of each month during the academic year. The meetings are open to students of the School.

#### CLINICAL FACILITIES

The affiliation of the Barnes Hospital and the St. Louis Children's Hospital with the Washington University School of Medicine makes these institutions for teaching purposes integral parts of the School of Medicine. These hospitals offer opportunities for study and observation in every important branch of medicine, and are closely connected with the Dispensary conducted by the University, which serves as the Out-Patient Department of these hospitals. This assures to the student unusual advantages in clinical work. The attending staffs of each hospital consist of the heads of the University Departments of Medicine, Surgery, Obstetrics, and Pediatrics, with their assistants.

Free and pay patients may be admitted to either hospital, but every effort is made to prevent the pauperization of the individual, and patients who are able to pay are expected to meet the nominal rates in force.

In both hospitals there is adequate laboratory equipment for the investigations necessary in diagnosis. In addition to the ward laboratories, there are special laboratories in all departments with facilities for research workers.

#### THE BARNES HOSPITAL

The buildings of the Barnes Hospital are situated upon a lot 837 feet in length, which runs from Kingshighway on the west to Euclid avenue on the east, facing Forest Park on the south and west. The group of hospital buildings proper consists of a central administration building, from which extend corridors lead-

ing to the medical and surgical wards, and to the private pavilion and service buildings. These buildings are of fire-proof construction.

The main entrance of the administration building opens upon a spacious rotunda. On either side of this rotunda are situated the general information office, the administrative office, the trustees' room, offices of the superintendent, the admitting office, and rooms for the physician-in-chief. The resident medical staff is housed in the second and third stories of this building. On the top floor is the operating pavilion and the lecture room for the Medical Department. The arrangement of the operating pavilion is such that the incoming patients may be conducted to the etherizing rooms by way of a separate corridor and are not brought into contact with the routine work of the department. There are one large and three small operating rooms, a small amphitheater, rooms for special examinations, offices of the surgeon in chief, dressing rooms, and workroom for the nurses. To the north of the administration building is the service building containing kitchens, dining-room, bakery, and rooms temporarily used by nurses, behind which the laundry occupies a separate building.

The building at the west of the hospital lot facing Forest Park both on the south and west is the private pavilion. Its separate entrance on Kingshighway gives to service the convenience of a private hospital with all the advantages of a general hospital.

The wings containing the wards of the hospital are situated on either side of the administration building. They are three stories high and have the shape of the letter T. On either side of the wards are porches for convalescent and bed patients.

With the space in the private pavilion the initial capacity of the Barnes Hospital is approximately 250 beds. Sufficient space is reserved to increase this number materially.

The Hospital contains numerous class rooms, laboratories, lecture rooms, and examining rooms, in addition to the accommodations usually found in general hospitals. Special provision has also been made for a modern equipment in the Departments of Actinography and Hydro- and Physical Therapy, and special wards and laboratories are provided for metabolic studies.

## THE ST. LOUIS CHILDREN'S HOSPITAL

The St. Louis Children's Hospital, which is placed on the same tract as the Barnes Hospital, immediately northwest of it and facing Forest Park on the west, offers facilities for bedside study and instruction in the diseases of infancy and childhood, including the infectious diseases. It is built of gray brick and harmonizes in color and design with the adjacent buildings. The Hospital has general medical wards, auditorium, and contagious wards with the accessory equipment of each.

The building devoted to general hospital work is five stories high and contains wards for general medicine, for infants, for general and orthopedic surgery, research laboratories, and rooms for the residents and internes. In connection with the third floor there is a large open-air ward on the roof of the auditorium building. In this part of the Hospital there are 120 beds.

The Building for Contagious Diseases contains 40 beds. The three floors may be isolated for the different contagious diseases. Accommodations have been made for mothers of sick children and to a limited extent for adults with infectious diseases.

Between the general hospital and the contagious building there is an auditorium two stories high, connected with the other two buildings. The out-patient department of the Hospital is located in the general out-clinic department of the School of Medicine.

A valuable adjunct to the St. Louis Children's Hospital is its Country Department, located on the Missouri Pacific Railway, one and one-half miles from Valley Park. The hospital building of this department is of brick and concrete construction and fire-proof. It consists of two open wards, each to accommodate 25 children, overlooking the Meramec River to the south.

## HOSPITAL FOR COLORED PATIENTS

Plans have been completed and specifications drawn for the erection of a new pavilion for colored patients, this building to be located on the hospital block between the Children's Hospital and the Service Building. Pending the construction of these quarters colored patients are being provided for in special wards set aside for their use in the Barnes Hospital.

WASHINGTON UNIVERSITY DISPENSARY  
OUT-PATIENT DEPARTMENT OF THE BARNES AND ST. LOUIS  
CHILDREN'S HOSPITALS

Since December, 1914, when the Washington University Dispensary moved into its new building, all clinics have been held at this one place. The Dispensary is an organic part of the School of Medicine and is entirely controlled by the Corporation of the University through a Committee of the Medical Faculty. It acts as the out-patient clinic for the Barnes Hospital and the St. Louis Children's Hospital. There were recorded in the Dispensary during 1919, 117,924 visits, and during 1920, 116,180 visits. The heads of the various departments in the School of Medicine control their departments in the out-patient clinic and these departments are responsible for the care of patients. All clinical facilities are available for teaching purposes, and the members of the third and fourth year classes in small sections work in these clinics under the supervision of the out-patient staff. The work of all services is facilitated by the coöperation of the Departments of Nursing and of Social Service.

SERVICE OF THE WASHINGTON UNIVERSITY SCHOOL  
OF MEDICINE IN THE CITY HOSPITALS

At the invitation of the authorities of the Hospital Division of the City of St. Louis, Washington University has assumed control and has become responsible for the medical care of the patients in City Hospital No. 2 (Negro Hospital), and for one-half of the patients in the City Infectious Disease Hospital, and has further agreed to render such professional service in the other municipal institutions as the Hospital Commissioner might request.

The physical equipment of these hospitals is such that this service can be used to advantage for both undergraduate and graduate teaching, and the addition of these units to the clinical facilities of the University greatly broadens the opportunities for teaching. By this coöperation, it is also possible for the University to render a distinct service to the community and to the sick poor. The number of beds made available by this arrangement is approximately 375.



The general plan of organization of the Washington University units in these hospitals is the same as that in operation at the Barnes and St. Louis Children's Hospitals. Each unit is organized with a chief of staff who is held responsible for the work of the department and for the proper assignment of work to his associates.

### REQUIREMENTS FOR ADMISSION

Applicants for admission are required to have completed satisfactorily a standard four-year high school course, or its equivalent, and college courses covering at least two full years of work and representing at least sixty semester hours of credit, in an acceptable institution.

The college work must include courses of at least the credits stated below in the following subjects:

1. English, at least six semester hours.
2. French or German, at least ten semester hours in either language.\* This requirement is intended to enable the student to read publications of the medical sciences in at least one of these languages, and the demonstration of a reading knowledge of either language, by examination, will be accepted in lieu of college credit. So far as possible, students should acquire a knowledge of both languages.
3. Physics, at least eight semester hours. The laboratory work should be in part of a quantitative character.
4. Chemistry, at least twelve semester hours. The work must include organic chemistry as well as general inorganic chemistry, and should also include instruction in quantitative analysis.
5. Biology. (Zoölogy and Botany), at least eight semester hours. In addition to the study of the structure, functions and life history of selected types of animal and plant life, the preparation in biology should include laboratory instruction in elementary embryology.

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\* In the case of students who present high school credits in French or German for entrance to college, the following college credits will be accepted provided the college courses are in continuation of and do not duplicate the high school work:

Eight semester hours following one high school unit, six semester hours following two high school units, and four semester hours following three high school units.



Applicants for admission are required to submit credentials from the college in which they have studied, enumerating (1) credits accepted for admission to college, (2) all college courses taken and dates of attendance, (3) the grade attained in each course, and (4) the credits allowed. The degrees received and the number of years of collegiate study successfully completed must also be stated. Blank forms for recording these data will be furnished on application.

Candidates who are deficient in any of the above minimum requirements will not be admitted.

While two years of collegiate work, as in part above specified, fulfill the minimum requirement for entrance to the School of Medicine, the broader training afforded by additional years of academic work offers better preparation for the study and practice of medicine. Students intending to pursue the study of medicine should, if possible, complete the four-year college course.

Students in Washington University preparing for the study of medicine, and who can devote only two years to preparation, may follow either of two plans, depending upon whether they desire to become candidates for the degree of Bachelor of Science.

#### BACHELOR OF SCIENCE

The degree of Bachelor of Science is conferred in the College on those students who have satisfactorily completed the two years of work described below, and have in addition received good grades in all the required courses of the first and second years in the School of Medicine.

#### PRE-MEDICAL CURRICULUM LEADING TO THE DEGREE OF B.S.

##### Freshman Year

General Descriptive Chemistry.....	Chemistry	1... 6 units
Composition and Rhetoric.....	English	1... 6 units
Elementary French .....	French	2... 10 units
Or Elementary German.....	German	2... 10 units
General Biology .....	Zoölogy	1... 6 units
Elective .....		6 units
Physical Education or Military Training.....		

## Sophomore Year

Qualitative Analysis .....	Chemistry	11...	3 units
Quantitative Analysis .....	Chemistry	14...	3 units
Organic Chemistry .....	Chemistry	21...	6 units
General Introduction to English Literature .....	English	11...	6 units
French .....	French	8...	6 units
Or German .....	German	10...	6 units
Elementary Physics .....	Physics	2...	8 units
Embryology .....	Zoölogy	4...	3 units
Elective .....			3 units
Physical Education or Military Training.....			

The following options and restrictions are effective:

(a) Students presenting two years of high school German (or French) for entrance may take German 3 (or French 6), and those presenting three years, German 6 (or French 7). In this case two electives totaling 12 units are required in the Freshman year, but a ten-unit language course may be substituted for these.

(b) Freshman electives may be selected from the list of courses open to Freshmen given in the announcement of the College, and Sophomores may elect any course not specifically restricted to Juniors and Seniors, provided the prerequisites have been satisfied.

(c) Candidates for the B.S. degree are required to take additional work in the School of Medicine equivalent to those required courses of the medical curriculum (organic chemistry and embryology) for which they bring credit.

Those students who are not candidates for the B.S. degree may elect their two years of college work in accordance with the following schedule:

Freshman Year		Sophomore Year	
Chemistry 1 .....	6 units	Chemistry 11 .....	3 units
English 1 .....	6 units	Chemistry 14 .....	3 units
French 1 .....	6 units	Chemistry 21 .....	6 units
Or German 1.....	6 units	French 6 .....	6 units
Zoölogy 1 .....	6 units	Or German 3.....	6 units
Elective .....	6 units	Physics 2 .....	8 units
		Zoölogy 4 .....	3 units
		Elective .....	3 units

German or French may be omitted by students who show evidence on examination of a reading knowledge of the language.

### ADMISSION TO ADVANCED STANDING

Applications for advanced standing must be filed in the office of the Registrar of the School of Medicine before July 1. Blank forms for such application will be furnished upon request.

Applicants for admission to advanced standing (1) must furnish evidence that the foregoing terms of admission in regard to preliminary training have been fulfilled, (2) must show that courses equivalent in kind and amount to those given in this School, in the year or years preceding that to which admission is desired, have been satisfactorily completed, and (3) must pass satisfactory examinations in those subjects in the work for which they have asked credit. These examinations may be waived at the discretion of the instructor in charge of the corresponding course. The applicant must have studied as a matriculated medical student in an acceptable medical school for a period of time at least equal to that already spent by the class to which admission is sought.

(a) Students who have received from an approved medical school credit for courses equivalent to those of the first year of this School in anatomy, chemistry, and physiology will be admitted to the second-year class without examination, but, at the discretion of instructors, may be examined in these subjects at the end of the second year. (b) Students who have received from an approved medical school credits in anatomy, chemistry, physiology, bacteriology, pathology, and pharmacology, will be permitted to enter the third-year class, but no student may enter with a condition in any of these subjects. (c) Students who have received credits for courses in anatomy, chemistry, physiology, pharmacology, bacteriology, and pathology, equivalent to those given in this School, may enter the fourth-year class without examination in subjects of the third year, provided they have received credit for courses in medicine, surgery, pediatrics and obstetrics, equivalent to those of the third year, but, at the discretion of instructors, may be examined in these four subjects at the end of the fourth year.

Graduates of other medical schools, who are permitted to enter this School with advanced standing as candidates for the degree,

are required (a) to pay the fees charged for the years in which they are in attendance, and (b) to fulfill the requirements for graduation, as stated in this announcement.

Applicants for advanced standing are required to furnish, in addition to the credentials required for admission, credentials from the medical school in which they have studied, enumerating the completed medical courses for which credit is asked and stating the number of completed years of medical work.

### ADMISSION OF GRADUATES IN MEDICINE

Graduate students may be admitted to the School on the following basis: (1) Those who may be qualified to participate in definite investigation, under the direction of a member of the staff, may, upon the written recommendation of the instructor in charge, endorsed by the head of the department, be accepted by the Faculty as volunteer research assistants and will not be charged fees. (2) Visiting graduates may, with the consent of the heads of the departments concerned, take special work in one or more departments without paying fees. (3) A limited number of graduate physicians, or others who may be qualified, may be admitted to courses with the undergraduate classes subject to the consent of the instructors and the head of the department. Fees for special courses, individual instruction, or material will be determined by the Dean, in conference with the head of the department in which the work is done, in each case. A number of special courses are being offered in medicine, surgery, and the specialties, concerning which full information will be found in that part of the catalogue devoted to Post-Graduate Instruction.

### STANDING AND PROMOTION

To enter any course, the student must have fulfilled the prerequisites of that course, as announced in the catalogue.

Examinations to determine standing and promotion will be held at the close of each academic year.

Students whose work is judged unsatisfactory by the Faculty will be required to withdraw from the School.

The minimum time in which the courses required for the degree of Doctor of Medicine can be taken is four years.

Graduates of Washington University School of Medicine are exempt from the first and second examinations of the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England.

### REQUIREMENTS FOR GRADUATION

The candidates must be more than twenty-one years of age and of good moral character. They must have attended not less than four annual courses of medical instruction as matriculated medical students, the last of which has been in this School. They must have taken all obligatory courses offered here, or their equivalent, and have received a satisfactory grade in the work of the entire four years. They must have discharged all indebtedness to the School and must be present when the degree is conferred.

At the end of the fourth year every student who has fulfilled these requirements will be recommended for the degree of Doctor of Medicine.

### HOSPITAL APPOINTMENTS

In the second trimester of the year, internes for the Barnes Hospital and for the St. Louis Children's Hospital are selected by the School of Medicine.

The services begin July 1 and September 1, and are for one year. For 1921-22 these services are as follows:

#### Barnes Hospital

Medical Service, five positions.

Surgical Service, six positions.

Obstetrical Service, four positions.

#### St. Louis Children's Hospital

Four positions.

Appointments to these positions are usually made from members of the fourth-year class of the School of Medicine. While preference is shown members of the School or its graduates, graduates or members of the fourth-year class of other schools may be nominated for positions. Selection is made from those applying on the basis of class standing in required work, upon evidence of special fitness as shown by work in elective courses, upon per-



sonal considerations, and, when desired by the Faculty, upon examination.

About seventy other appointments are made each year to internships in the various hospitals of St. Louis not connected with the University. The fourth-year students and graduates of this School may compete with those of other schools for these positions, which are filled upon the basis of examinations conducted by the respective boards of the hospitals.

### PRIZES

TWO GEORGE F. GILL PRIZES are offered to the students of the School, viz.:

1. One prize of fifty dollars to be awarded at the end of the first year to the member of the class who shall have made the highest grade in anatomical work.
2. One prize of fifty dollars to be awarded to a member of the graduating class, of high general standing, who shall have done especially good work in the Department of Pediatrics.

#### WINNERS OF PRIZES AND HONORS, 1919-20

*Gill Prize in Anatomy*

Paul Kingsley Webb

*Gill Prize in Diseases of Children*

Harvey Lester White, B.S.

### FELLOWSHIPS AND SCHOLARSHIPS

A SURGICAL FELLOWSHIP has been established in the Department of Surgery for special neurological work. The income of this fellowship is \$1200.00 per year. Candidates for this fellowship must be graduates in medicine. Applicants who have had one year's internship are preferred.

TWO SURGICAL FELLOWSHIPS are available in the Department of Surgery for general work. The stipends for these fellowships vary somewhat, depending upon the experience of the applicant.

Application for these fellowships should be made to the Professor of Surgery.



The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Pediatrics, entitles the holder to remission of the tuition fee to the amount of the Scholarship, namely, \$100.00.

The ALUMNI SCHOLARSHIP, instituted by the Alumni of Washington University School of Medicine, entitles the holder to the same remission of the tuition fee, namely, \$100.00.

Applications for these scholarships should be filed with the Registrar.

### FEES AND EXPENSES

The University reserves the right to change the fees herein stated, at any time, without notice. Whenever a change is made, it will become effective as to the next instalment for payment due from the student.

#### MATRICULATION FEE

A matriculation fee of \$5.00 is required of all students upon initial registration.

#### LATE REGISTRATION FEE

A charge of \$3.00 will be made against each student who fails to register during the first week of the academic year.

#### TUITION FEE

The tuition fee is \$200.00, payable in two equal instalments, at the beginning of the first trimester and on February 1. There are no laboratory fees.

#### STUDENT ACTIVITIES FEE

A fee of \$6.00 a year, payable in two instalments, one at the beginning of the first trimester and one on February 1, is collected from each student. The fee is for the support of athletics and several other student activities, and is largely under the control of the Student Body.

#### DIPLOMA FEE

At the completion of the course a diploma fee of \$5.00 will be charged.

#### RENTAL OF MICROSCOPES

A microscope is needed by each student throughout each year in the School and is equally essential to the physician after graduation. Students who enter the school after January 1, 1920, will be required to furnish their own microscopes. The School of Medicine is willing to purchase a microscope for each student who does not already own one, and will charge a yearly rental for the instrument which will be approximately a quarter of the cost plus an interest of six per cent on the deferred payments. After the fourth payment, the microscope shall be the property of the student. These payments may be made yearly or at more frequent intervals. The School of Medicine owns a limited number of microscopes which may be obtained by students entering the school before January 1, 1920, at an annual rental of \$7.50 for each instrument. Students renting microscopes are held responsible for their return in good condition at the close of each year. Students must provide their own hemocytometers.

#### BREAKAGE DEPOSIT

Each student is required to pay \$10.00 annually to cover breakage. Any balance of this deposit will be returned at the end of each year. No student will be granted the use of the laboratories or apparatus of the School until the required deposit has been paid.

All fees and charges are payable in advance at the office of the Treasurer in University Hall, or at the office of the Registrar of the School of Medicine. No rebate of the tuition fee can be made for absence, whether such absence occurs at the beginning, middle, or end of the trimester, except in cases of prolonged illness certified to by a physician. Checks should be made payable to Washington University.

#### STUDENT HEALTH

A physical examination is made of each student at entrance by a physician appointed by the Medical Faculty. This Physician to Students may be consulted daily. He keeps records of the physical condition of the students and treats their minor ills. In cases of serious sickness, they are referred to their own physicians or to specialists.

### MEN'S DORMITORY

A dormitory building containing rooms for about sixty students is located on Forest Park Boulevard, in close proximity to Forest Park, one of the most attractive localities in the city. There is a tennis court in the rear of the building, and there are public golf links, tennis courts and baseball grounds in Forest Park. Each room is furnished with the following articles: a bed and a mattress, one pillow, one table, two chairs, one chifforobe, costumer, toilet cabinet, student's lamp, two small rugs. Each occupant must furnish his own bed covering, consisting of sheets, pillow cases, counterpanes, and blankets.

The rental of a room is \$120.00 an academic year, payable in two instalments in advance, at the beginning of the first trimester and on February 1. Reservations are made upon the express understanding that the applicant agrees to occupy the room reserved until the close of the ensuing academic year. Application for reservation should be made on a prescribed form to the Registrar of the School of Medicine, and must be accompanied by a reservation fee of \$10.00. This fee will be returned, should the room not be assigned, but it will not be refunded for any other reason. If a room is assigned, the fee will be held by the University to cover losses resulting from possible damage to the room or to the furniture. Any portion not so used will be refunded.

## GENERAL PLAN OF INSTRUCTION

Instruction in the School of Medicine is given to candidates for the degree of Doctor of Medicine and to graduate students who may or may not be candidates for higher degrees. Courses which are open to students in the University, not candidates for the degree of Doctor of Medicine, are described under "Courses of Instruction" in the catalogue of the College.

The course of study required of candidates for the degree of Doctor of Medicine extends over a period of at least four academic years, and is designed for students who have already received certain preliminary training. As stated in detail on pp. 71 ff., the student on entering the School must have completed two years of college work, which includes a knowledge of chemistry, physics, biology, English and either German or French.

The academic year, extending from the last week of September to the first week in June, is divided into trimesters, of about eleven weeks each. The required work keeps the student occupied for about thirty hours each week, and demands outside preparation. As far as possible the work is so arranged as to leave free several half days each week, during which time those students who can profitably undertake extra work are encouraged to take courses in the subjects of their greatest interest. To meet this demand, suitable optional courses are offered by each department in the School.

The curriculum, covering four years, is divided into three distinct periods.

The first period includes the first year and the first and second trimesters of the second year. During this time the student studies the fundamental sciences of anatomy, biological chemistry, physiology, pathology, and bacteriology. For this first period, the whole interest of the student is concentrated on the fundamental essentials of medical education, and every effort is made to train the faculty of critical and independent observation. Anatomy and chemistry are studied during the first year. In the last trimester of this year, the study of physiology begins, and bacteriology is studied in preparation for work in pathology. In

the first trimester of the second year practical anatomy is completed, while during the first two trimesters physiology and pathology are studied. In the last trimester of this period courses in pharmacology, physical diagnosis, medical observation, and surgical technic are introduced, in preparation for the clinical work of the second period.

The second period, extending from the third trimester of the second year through the second trimester of the fourth year, is devoted primarily to clinical work. For the first half of this period, the student receives practical clinical instruction in the out-patient departments of medicine, surgery, and obstetrics, and attends clinics, lectures, and recitations. This work in the out-patient departments occupies from 6 to 8 hours per week. Patients are examined by the student and treated under the direction of the attending staff. During the second half of this period, the students are assigned to the various wards of the Hospitals, and each section of the class serves a full trimester in each ward, namely, medicine, surgery, and obstetrics and pediatrics. During the second period pharmacology is completed and courses are also given in clinical chemistry and microscopy, neurological pathology, surgical and gynecological pathology, and operative surgery on animals. Special emphasis is placed upon diagnosis and treatment of patients. There are few lectures. Instruction is given at clinics and at the bedside. Clinical work in the specialties is confined to the second half of the second period.

During the third and last period, which occupies the third trimester of the fourth year, there is no prescribed curriculum. The student must gain credit for 300 hours of elective work, 150 of which must be spent in some one department. It is expected that, during this period, the students will avail themselves of the opportunity to further any special interest they may have in any one of the fundamental sciences or clinical subjects, and that some few may attempt a certain amount of original work. Fourth year students whose mornings are occupied by prescribed studies will be required to elect 75 hours of work in not more than two departments.

## SUMMARY OF ENTIRE CURRICULUM BY HOURS

Giving the actual work required of each student graduating in June, 1921, exclusive of examination hours:

SUBJECTS	HOURS	SUBJECTS	HOURS
Histology .....	252	Dermatology .....	44
Neurology .....	90	Medical Jurispru-	
Human Dissection ....	297	dence .....	22
Topographical An-		Surgery .....	649
atomy .....	72	Ophthalmology .....	66
Applied Anatomy ....	24	Otology .....	55
Biological Chemistry..	251	Laryngology and	
Physiology .....	245	Rhinology .....	55
Pharmacology .....	110	Obstetrics and Gyne-	
Bacteriology .....	121	cology .....	242
Pathology .....	362	Pediatrics .....	169
Internal Medicine.....	623	Preventive Medicine...	33
Neurology and		Elective .....	300*
Psychiatry .....	143		
		TOTAL.....	4,225

\* See p. 82.



## COURSES OF INSTRUCTION

## Anatomy

Robert J. Terry, M.D. . . . .	Professor of Anatomy
Paul Y. Tupper, M.D. . . . .	Clinical Professor of Surgery
Charles H. Danforth, Ph.D. . . . .	Associate Professor of Anatomy
Archie W. L. Bray, A.M. . . . .	Associate in Anatomy
Edgar Allen, Ph.B. . . . .	Instructor in Anatomy
Raymond A. Dart, M.B., Ch.M., M.Sc. . . . .	Rockefeller Fellow in Anatomy

## First Year

3. HISTOLOGY. The subject is presented from an embryological viewpoint. The early part of the course is devoted to a review of the salient features of human embryology and an intensive study of the histogenesis of fundamental tissues. This is followed by a study of the organogeny, fine anatomy and history of the several systems. Each student is provided with a loan collection of selected preparations and also has access to a collection of reference slides. Lectures, demonstrations and recitations are designed to supplement and co-ordinate the work. Six mornings a week in the first trimester. 252 hours.

Mr. Bray, Mr. Allen, Mr. Dart

5. NEURO-ANATOMY. A laboratory and lecture course on the development and macroscopic and microscopic anatomy of the central nervous system and sense organs. Collections of sections through the brain stem, special Weigert and Golgi preparations, wax models, and embryological and adult material for dissection are provided. The gross dissection is followed by a study of neuro-histology, of fiber tracts, nuclei, the interrelations of the neurone systems, and functional significance of special organs. Nine hours a week during the second trimester. 121 hours.

Professor Terry, Professor Danforth, Mr. Allen, Mr. Dart.

6. **HUMAN DISSECTION.** The course offers opportunity for the systematic study of the structure of the human body. Each student is provided with material for the preparation and study of the muscles, joints, and skeleton; the viscera; the vascular system and peripheral nerves. Lectures and demonstrations on certain aspects of human anatomy serving to systematize the observations made in the laboratory and to direct attention to human structure in relation to function, pathological change, medical and surgical application, variation and heredity are given from time to time during the year. Nine hours a week throughout the year. 297 hours.  
Professor Terry, Professor Danforth, Mr. Dart

#### Second Year

9. **APPLIED ANATOMY.** The conventional surgical regions are considered and the skeleton, muscles, bloodvessels, nerves, and lymphatics are discussed from the surgeon's point of view. Lectures and demonstrations two hours during the third trimester. 22 hours.  
Professor Tupper

#### OPTIONAL AND ELECTIVE COURSES

1. *Anatomy of Vertebrates.* A good collection of vertebrate forms is used for dissection and microscopical study. Lectures on the results of comparative anatomy and on the theories relating to organized structure accompany the laboratory course. One lecture or recitation and five hours of laboratory work a week throughout the year. 210 hours. Professor Danforth, Mr. Allen

2. *Embryology.* The course deals with the development of the human organism, and is planned for advanced students. The scope is limited to an intensive study of some subject which may be chosen by or assigned to the individual. Four or eight hours of laboratory work a week in the second or third trimester. 44 to 88 hours.  
Mr. Allen

4. *Cytology.* The course affords an opportunity for a careful study of cells with special reference to their finer structure and functional relations. An intensive study will be made of the genesis, life history and physiological reactions of one or more types of cells. Prerequisite, Anatomy 3 or its equivalent. Six hours of laboratory work a week in the third trimester. 66 hours.

(—————)

8. *Topographical Anatomy.* Six hours a week in the third trimester in laboratory study of the position and relations of organs. Sections, museum preparations, and models are used as material for study. 72 hours. Professor Danforth

10. *Advanced Course in Gross Anatomy.* Dissection of the human body, study of preparations and sections. Hours to be arranged. Professor Terry

12. *Conferences in Osteology.* One hour a week in the second trimester. Professor Danforth

13. *Physical Anthropology.* Three hours of laboratory work with assigned reading. The objects of this brief course are to familiarize the student with the methods used in the study of physical anthropology and to awaken interest in research in this branch of anatomy. 33 hours. Prerequisite, Anatomy 1 and 6. Professor Terry

14. *Anatomy of the Living Body.* In this course of lectures with demonstrations it is intended to treat collectively of those anatomical features which can be observed in the living body. First trimester. Prerequisite, Anatomy 1 and 6. Professor Danforth

15. *Anatomical Technology.* Opportunity is afforded for gaining experience in the ordinary methods of preparing material for study. Among the methods undertaken are: preservation of gross material, color injection, preparation of bones, the technique of fixing, embedding, cutting, and staining microscopical objects. Six hours of laboratory work in the third trimester. 66 hours.  
(—————)

16. *Variation and Heredity in Man.* Discussion of the variations commonly met with in the study of human anatomy and their significance with special reference to heredity. Lectures, one hour a week in the third trimester. 33 hours. Professor Danforth

17. *Investigation.* The department offers facilities for investigation in several branches of anatomical science and those qualified are encouraged to undertake research. Hours to be arranged.

18. *Seminar in Anatomy.* For members of the staff and investigators. Once a week throughout the year.

### Biological Chemistry

Philip A. Shaffer, Ph.D.	. . . Professor of Biological Chemistry
Edward A. Doisy, Ph.D.	. . . Associate in Biological Chemistry
Alfred P. Briggs, B.S.	. . . Assistant in Biological Chemistry
Irene Koechig, A.M.	. . . Assistant in Biological Chemistry
Alexis F. Hartmann, B.S.	. . . Fellow in Biological Chemistry
Milo L. Heideman, A.B.	. . . Student Assistant in Biological Chemistry

1. *Quantitative Analysis.* A laboratory course designed to acquaint the student with those principles of gravimetric and especially volumetric analysis, which form the basis for quantitative chemical work in the medical sciences. Principles and quantitative technique are emphasized rather than the study of applied analytical methods which are considered in Course 3. The course is required of those students who enter without credit in volumetric analysis and is optional to others. First trimester, five hours a week. 60 hours.

Dr. Doisy

3. BIOLOGICAL CHEMISTRY. A systematic course of lectures, recitations, conferences, and laboratory work covering those portions of the subject which are of the greatest importance to the student of medicine. The laboratory work includes detailed study of the chemistry of fats, carbohydrates, and proteins; the synthetic preparation of a few organic substances; the analysis of the more important animal tissues and fluids; a study of the action of enzymes; the conduct of metabolism experiments by the student upon himself as illustrating some of the principles of nutrition; a study of the composition of important foods; and extended practice in chemical technique. During the latter part of the course, after reading the published records of original investigations, each student prepares a thesis upon a selected topic. So far as time permits, the theses are presented to the class for discussion. Pre-requisite: courses in chemistry required for entrance; Course 1 (Quantitative Analysis) or its equivalent. Second trimester, lectures and recitations four hours, and laboratory nine hours a week. Third trimester, lectures and recitations three hours, and laboratory eight hours a week. Lectures and recitations 73 hours, laboratory 187 hours.

Professor Shaffer, Dr. Doisy

4. *Advanced Work.* Courses of laboratory work and selected reading in biological chemistry will be arranged to suit individual needs.

5. *Research.* The facilities of the department are available to students qualified to undertake investigation in biological chemistry.

6. *Seminar.* Conducted jointly by the Departments of Physiology and Biological Chemistry. Meetings at which papers of current journals are presented and discussed. Open only to students who have credit in, or are taking, physiology or biological chemistry. Once a week throughout the year.

### Physiology

Joseph Erlanger, M.D. . . . .	Professor of Physiology
Herbert S. Gasser, M.D. . . . .	Associate Professor of Physiology
Charles M. M. Gruber, Ph.D. . .	Associate in Physiology
Harvey L. White, M.D. . . . .	Assistant in Physiology
Millard T. Nelsen . . . . .	Student Assistant in Physiology

### First and Second Years

2. **PHYSIOLOGY.** Lectures. This course is designed especially to meet the needs of students of medicine, but is open to properly prepared students in the College. It consists of lectures, demonstrations and recitations covering systematically the field of human physiology. As far as practicable the lectures are descriptive of experiments demonstrated in the lecture room. Free use is made of charts, models, lantern slides, and records for the purpose of bringing to the attention of the student the experimental basis of those principles of the subject that do not lend themselves readily to experimental demonstration. Weekly recitations are held upon the subject matter of the lectures. The lectures begin in the third trimester of the first year and are continued during the first trimester of the second year. Properly prepared students in the College and, under exceptional circumstances, medical students will be permitted to begin the course at the opening of the college year. The course is so arranged that students are



enabled to acquire some knowledge of anatomy, embryology, histology, neurology, and biological chemistry before the physiological aspects of the related topics are considered. The following subjects are covered in the lectures: muscle and nerve, central nervous system, senses, blood, circulation, respiration, secretion, digestion, nutrition, and reproduction. Only those students will be admitted to the course who have completed or have begun the study of anatomy and biological chemistry. 107 hours.

Professor Erlanger, Professor Gasser, Dr. Gruber,  
Mr. Nelsen

### Second Year

3. **PHYSIOLOGY. Laboratory Course.** This course must be taken in conjunction with Physiology 2. The experiments are so arranged as to serve at one and the same time to illustrate fundamental principles of physiology and to familiarize the student with the more important bio-physical methods employed in experimental physiology and medicine. The class works in groups of two. Each group has its individual table, which is supplied with all the apparatus necessary for the performance of the general experiments. To the groups is assigned in rotation the apparatus needed for the performance of special experiments. As far as practicable the students serve as subjects of the special experiments and study upon themselves by quantitative methods certain phases of the physiology of muscle and nerve, and of the circulation, respiration, central nervous system, and sense organs. The instruction in the laboratory is largely individual. Weekly conferences are held for the discussion and correlation of the experimental data. First trimester of the second year. 169 hours.

Professor Erlanger, Professor Gasser

4. *Demonstration Methods.* This course is designed primarily for students preparing to teach physiology, and who may desire a wider experience in experimental physiology than can be gained in Courses 2 and 3. It consists mainly of experiments demonstrated in Course 2. The time and the amount of work are not limited, except that assistance must be arranged for by definite engagements.

5. *Research.* The facilities of the laboratory will be offered to



qualified students for the investigation of their own problems or of problems which the department is prepared to suggest.

6. *Journal Club.* The Journal Club, conducted conjointly by the Departments of Biological Chemistry and Physiology, meets once a week for the discussion of papers of physiological interest appearing in the current journals. This course is open to properly prepared students only. Once a week throughout the year.

### Pharmacology

E. Kennerly Marshall, Jr.,

Ph.D., M.D. . . . . Professor of Pharmacology

Alfred C. Kolls, M.D. . . . . Associate Professor of Pharmacology

Archie D. Carr, B.S. . . . . Assistant in Pharmacology

Marian M. Crane, B.S. . . . . Research Assistant in Pharmacology

Lester J. Evans . . . . . Student Assistant in Pharmacology

1. PHARMACOLOGY. (a) Lectures, recitations, and demonstrations covering the general field of pharmacology. The action of each of the chief medicinal drugs on the individual organs or functions of the body is studied in detail, the subject matter of the lectures being correlated with the work of the laboratory. Attention is given to the methods of diagnosis and treatment of poisoning by the commoner drugs. The application of pharmacological principles to clinical medicine is emphasized. Students are required to familiarize themselves with prescription writing and the dosage of the more important preparations. Prerequisite, Anatomy, Biological Chemistry, and Physiology 2 and 3. Second and third trimesters of the second year. Courses (a) and (b) are required of medical students, but course (a) may be taken alone by special students. 55 hours.

Professor Marshall, Professor Kolls

(b) LABORATORY COURSE. Students work in small groups and complete sets of apparatus for the individual experiments are supplied to each group of students. The course is arranged to demonstrate the pharmacological action of the more important drugs,

and at the same time to familiarize the student with methods and processes used in experimental pharmacology. The chemical reactions of groups of drugs and important compounds are studied briefly. Complete records of each experiment, giving all the data which do not lend themselves readily to graphic methods, are kept by the students and filed together with the tracings in permanent note books. Six hours a week during the third trimester of the second year. 66 hours.

Professor Marshall, Professor Kolls, Mr. Carr

2. *Advanced Work.* This is arranged to suit individual needs. Opportunity is offered for the extensive study of any special group of drugs desired. In addition students may elect work in toxicology. Hours and details of the work to be arranged.

3. *Research.* The facilities of the laboratory are available to those who wish to carry on original investigation, on problems of their own or on those the department is prepared to suggest.

### Pathology and Bacteriology

Eugene L. Opie, M.D. . . . .	Professor of Pathology
Frank A. McJunkin, M.D. . .	Associate Professor of Pathology
Howard H. Bell, M.D. . . . .	Associate in Bacteriology
L. S. N. Walsh, M.D. . . . .	Assistant in Pathology
Alfred Goldman, M.D. . . . .	Assistant in Pathology
W. A. Hudson, M.D. . . . .	Assistant in Pathology
Morie F. Weymann . . . . .	Student Assistant in Pathology
Leslie A. Smith, B.S. . . . .	Student Assistant in Bacteriology

### First Year

1. **BACTERIOLOGY.** This course is a general survey of the entire field of bacteriology from the biological point of view. Special attention is given to the subjects of fermentation, putrefaction and toxin production, sterilization and disinfection, and the nature of infection and its effects. In the laboratory the methods of observing and staining bacteria and methods of bacteriological diagnosis are taught. Eleven hours a week during the third trimester. 121 hours.

Dr. Bell

### Second Year

2. **PATHOLOGY.** Prerequisite courses for pathology are repre-

sented by the required work of the first year in anatomy, biological chemistry, and bacteriology. Graduate students in the College whose major work lies in biology may elect pathology as a minor at the discretion of the department concerned. The course is subdivided as follows:

(a) LECTURES AND LABORATORY WORK. Instruction includes lectures, demonstrations, recitations, and work in the laboratory. General pathology will be taught by lectures given in association with the study of the gross and histological characters of the lesions concerned with experiments performed by the student and with demonstrations. Pathological histology will be studied by means of sections stained for microscopic examination by the student, supplemented by specially prepared specimens which are loaned; students are urged to describe and to draw the lesions they find. Some familiarity with the literature of pathology will be obtained by reports upon special topics made by members of the class during one hour each week in the second trimester. The members of the class attend autopsies, assist and learn to prepare appropriate protocols. Lectures and laboratory work, 11 hours a week in the first trimester and 14 hours in the second trimester. 275 hours.

Professor Opie, Professor McJunkin, Dr. Goldman,  
Dr. Hudson

(b) RECITATIONS. The work of each week is reviewed by a recitation, in which effort is made to determine how accurately the student has grasped the subjects studied in the laboratory and their relation to general considerations not adapted to demonstration before the class. One hour a week. 22 hours.

Professor Opie, Professor McJunkin

(c) CONDUCT OF AUTOPSIES. Whenever material is available autopsies are performed before the class. Students are instructed in the methods of post-mortem examination and in small groups have opportunity to practice the methods employed. Special attention is given to the preparation of orderly records.

Professor Opie, Professor McJunkin, Dr. Goldman,  
Dr. Hudson

(d) GROSS PATHOLOGY. Fresh pathological tissues are demon-

strated to the class divided into small sections, and students study by personal contact the lesions which occur. Fresh material is supplemented by organs preserved as museum specimens. By means of sections prepared by freezing, the relation of gross to histological changes is defined. One or two hours once a week. 44 hours.

Professor McJunkin and Assistants

3. INFECTION AND IMMUNITY. Lectures on the nature of infection and immunity will be given in the first trimester of the second year. The changes which occur in blood as the result of immunization will be studied in the laboratory. Students will perform reactions which demonstrate the existence of amboceptor and complement, precipitins, and other substances; they will determine the strength of an agglutinating serum, and will study the serum reactions used for the diagnosis of syphilis. Laboratory work, 2 hours a week during eleven weeks of the first trimester. 48 hours.

Professor Opie, Dr. Bell

4. CLINICAL AND PATHOLOGICAL CONFERENCE. The specimens and microscopical slides from all autopsies are studied with reference to the clinical histories. The important gross and microscopical lesions are described in detail with lantern slides. The medical and surgical aspects of the lesions are discussed before the class by the physicians and surgeons of the departments concerned. One hour a week for the five trimesters in the third and fourth years.

Professor Opie and Staff

5. *Medical Zoölogy*. The student will be provided with material suitable for the study of protozoa, parasitic worms and parasitic and blood-sucking insects. He will familiarize himself with the clinical diagnosis of animal parasites and the pathological changes caused by them in man. The inspection of meat to determine the presence of larval parasites will be practiced. The relation of the subject to public health will be considered. Hours to be arranged in the third trimester.

Professor Opie, Dr. Walsh

6. *Pathology of Tuberculosis*. The course is offered to physicians who are making a special study of tuberculosis. The pathology of first infection in tuberculosis will be studied at autopsy by means of pathological specimens and by X-ray plates

and its relation to the apical lesions of adults will be considered. Special attention will be given to latent tuberculosis and its relation to clinical tuberculosis will be considered. The relation of human and bovine bacilli to various types of human tuberculosis will be determined by appropriate methods. Problems of experimental tuberculosis will be considered and experiments will be performed. There will be no lectures; the work will be directed by the instructor and reading will be assigned. Physicians with the necessary preliminary training who desire to take the course will give their entire time to the work. Hours to be arranged.

Professor Opie

7. *Research.* The laboratory offers facilities for research in pathology and bacteriology. Specialists with adequate training who desire to extend their knowledge of the pathology of their specialty will be given opportunity for this study.

### Comparative Pathology

Leo Loeb, M.D. . . . . Professor of Comparative Pathology

1. Seminar for the discussion of selected problems in comparative and general pathology. Open to a limited number of students.

2. Qualified students may be admitted to the laboratory for research in comparative pathology.

3. Lectures on selected problems in comparative and general pathology.

### Medicine

George Dock, M.D. . . . . Professor of Medicine

Alan M. Chesney, M.D. . . . . Associate in Medicine

George W. Wilson, M.D. . . . . Associate in Medicine

Frank H. Ewerhardt, M.D. . . . . Instructor in Medicine

George R. Herrmann, M.D. . . . . Assistant in Medicine

Robert Novy, M.D. . . . . Fellow in Heart Station

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Elsworth S. Smith, M.D. . . . . Clinical Professor of Medicine



Albert E. Taussig, M.D. . . .	Associate Professor of Clinical Medicine
R. Walter Mills, M.D. . . .	Associate in Clinical Medicine
William H. Olmsted, M.D. . . .	Associate in Clinical Medicine
Walter Baumgarten, M.D. . . .	Instructor in Clinical Medicine
Jerome E. Cook, M.D. . . .	Instructor in Clinical Medicine
Llewellyn Sale, M.D. . . .	Instructor in Clinical Medicine
Louis H. Hempelmann, M.D. . .	Instructor in Clinical Medicine
Jacob J. Singer, M.D. . . .	Instructor in Clinical Medicine
Walter Fischel, M.D. . . .	Instructor in Clinical Medicine
Drew W. Luten, M.D. . . .	Instructor in Clinical Medicine
Joseph W. Larimore, M.D. . . .	Assistant in Clinical Medicine
Oliver H. Campbell, M.D. . . .	Assistant in Clinical Medicine
Charles H. Eyermann, M.D. . .	Assistant in Clinical Medicine
Raleigh K. Andrews, M.D. . . .	Assistant in Clinical Medicine
Lionel S. Luton, M.D. . . .	Assistant in Clinical Medicine
Arthur E. Strauss, M.D. . . .	Assistant in Clinical Medicine
Frank D. Gorham, M.D. . . .	Assistant in Clinical Medicine

### Second Year

1. PHYSICAL DIAGNOSIS. Lectures, demonstrations, and practical exercises in the technique of physical diagnosis and in the interpretation of the signs elicited by inspection, palpation, percussion and auscultation in health. Second trimester. 44 hours.

Professor Dock

2. ELEMENTARY MEDICINE. The course is composed of the following subdivisions:

(a) Recitations in Medicine. Based on reading assigned in a text-book of medicine. 22 hours.

Dr. Wilson

(b) Introductory Clinic. The observation and interpretation of symptoms and signs in ward and dispensary patients with special reference to pathological physiology and its relation to diagnosis. Instruction in the preparation of clinical histories is also included. 22 hours.

Professor Dock

### Second and Third Years

4. PHYSICAL DIAGNOSIS. Practical training in the physical methods of diagnosis. This includes not only the ordinary meth-



ods of physical diagnosis but the technique and application of sphygmomanometry, fluoroscopy, and the like. Records and diagrams of the findings in all cases examined by members of the class are handed in and criticised. The class is divided into small groups and each group studies patients in the hospital wards and in the dispensary. The course covers three trimesters, beginning in the third trimester of the second year. Students entering the third year take this course throughout the entire third year. Two hours a week for three trimesters. 66 hours.

Professor Taussig and staff

5. CLINICAL CHEMISTRY AND MICROSCOPY. A series of lectures and a laboratory course in methods of microscopic and chemical diagnosis. The subjects are the urine, blood, stomach contents, sputum, faeces and puncture fluids. Material is obtained from cases in the hospitals and dispensaries. Considerable reading is required outside of laboratory hours. Seven hours a week, first trimester. 84 hours.

Dr. Chesney, Dr. Olmsted

6. MEDICINE. The course is composed of the following subdivisions:

(a) Recitation in Medicine. Continuation of Course 2 (a). In these two courses, completed at the end of the second trimester of the third year, an effort is made to see that the student gains a theoretical knowledge of the most important internal diseases and that he has learned how to read and to look up medical subjects in the literature. Diseases that can be thoroughly studied in the clinics are passed over rapidly with special attention to etiology and pathology only. Specimens from the Pathological Museum, all of which have clinical histories and are carefully classified, are used. 55 hours.

Dr. Wilson, Dr. Strauss

(b) Medical Dispensary. One-third of the class work in the medical dispensary during each trimester. This group is subdivided and the sub-groups rotate through the general medical, gastro-intestinal and tuberculosis clinics. The students take histories, and make physical and laboratory examinations under the direction of the staff. Two hours four days a week for one trimester. 88 hours.

Dr. Eyermann, Dr. Wilson, Dr. Strauss, Dr. Sale,  
Dr. Singer, Dr. Gorham

7. **THERAPEUTICS.** A course designed to give students a practical knowledge of the methods, the various drugs, and the agencies employed in the treatment of disease. The general conditions under which each drug is used in pathological conditions and its application are discussed. The action of drugs and the use of other remedial agents, such as sera, vaccines, as well as hydro- and mechano-therapy, are considered. Two hours a week during one trimester. 22 hours.

Dr. Chesney, Dr. Baumgarten, Dr. Ewerhardt

8. **DIETETICS.** Lectures and recitations upon foods, beverages and condiments in health and disease. One hour a week for one trimester. 11 hours.

Dr. Olmsted

### Third and Fourth Years

10. **MEDICINE.** The course is subdivided as follows:

(a) **Medical Ward Work.** The class is divided into three sections. Each section is in daily attendance for eleven weeks. Ward rounds 9-10 a. m. daily. The students are assigned cases in the medical wards and are required to write the histories and make physical and laboratory examinations, write résumés with diagnosis and prognosis and describe treatment in detail. The patients are examined, the work of the section scrutinized and criticised, methods of diagnosis and treatment discussed and practiced, and special reading assigned. The specimens from autopsies on medical patients are studied with reference to the clinical histories and the gross and microscopic anatomy. 150 hours.

Professor Dock, Professor Smith, and Assistants

(b) **Clinical Conferences.** Patients whose cases have been investigated by students working in the wards are presented before the class and diagnosis, pathology, and treatment discussed from various points of view. Once a week for one year. 33 hours.

Professor Dock

(c) A weekly clinic in which a series of subjects, such as gastrointestinal diseases, arterial hypertension, disturbances of internal secretions, pulmonary tuberculosis, and the mechanism of the

heart beat are presented. Material from the Out-Patient Department is presented by members of the dispensary staff. 33 hours.

Professor Smith, Professor Schwab, Dr. Mills, Dr. Sale,  
Dr. Singer, Dr. Luten, Dr. Strauss,  
Dr. Eyermann, Dr. Gorham

(d) Clinical and Pathological Conferences. Students attend these conferences during their third and fourth years. The staffs of the various clinical departments and of the Department of Pathology participate in giving this course. (See Pathology 4.)

13. *Diagnosis and Treatment of Diseases of the Digestive Tract.* The course consists of history taking and physical diagnosis of the abdomen, including radiology, fluoroscopy, plate reading, sigmoidoscopy, etc. Hours by special arrangement.

Dr. Mills, Dr. Larimore

14. *Diagnosis and Treatment of Heart Disease.* A practical course in the technique of polygraphic and electrocardiographic methods for the study of cardiac disorders; their use in diagnosis and treatment of heart disease will be considered. Open to a limited number of students. Hours by special arrangement.

Dr. Herrmann

15. *Advanced Work in Laboratory Diagnosis.* An elective course for those qualified. Undergraduates who can devote one entire trimester to the work and graduates in medicine with the necessary previous training who wish to investigate problems in clinical pathology are eligible. Hours to be arranged.

Dr. Chesney

### Neurology and Psychiatry

Sidney I. Schwab, M.D. . . . Professor of Clinical Neurology  
Francis R. Fry, M.D. . . . Clinical Professor of Neurology  
Leland B. Alford, M.D. . . . Associate in Clinical Neurology  
Lewis D. Stevenson, M.D. . . . Instructor in Neuropathology  
James Lewald, M.D. . . . Assistant in Clinical Psychiatry  
Groves B. Smith, M.D. . . . Assistant in Clinical Neurology

### Second and Third Years

#### 1. NEUROLOGY.

(a) Introductory course in neurology and psychiatry, lectures,

and demonstrations in clinical anatomy and physiology of the nervous system. Methods of neurological examination, history taking, study of case histories, etc. One hour a week for two trimesters. 22 hours. Professor Schwab

(b) Neuropathology. Laboratory demonstration of the material covered in Course (a), with a study of gross and microscopic lesions of the nervous system, fibre tracts, etc. Exercises in examination and description of microscopic preparations of the more common diseases of the nervous system. Two hours a week for one trimester. 22 hours. Dr. Stevenson and Assistants

(c) Neurological Dispensary. Students in small groups spend part of their time in the neuro-psychiatric dispensary attending the neurological, psychiatric, and mental deficiency clinics. Diagnosis and treatment of neuro-psychiatric conditions are studied. Two hours a week for one trimester. 22 hours.

Professor Schwab, Dr. Alford, Dr. Stevenson,  
Dr. Lewald and Assistants

#### Third and Fourth Years

##### 3. NEUROLOGY.

(a) Neurological ward rounds with the medical group. Neurological and such psychiatric cases as are suitable for hospital treatment are studied. Two hours a week for one trimester for each medical group. 22 hours. Professor Schwab

(b) Neurological Conference. A series of clinical demonstrations before the whole class in which all available types of nervous and mental diseases found in the hospital are discussed. One hour a week for three trimesters. 33 hours. Professor Schwab

4. PSYCHIATRIC CLINIC. Selected cases illustrating the various groups of mental disorders are demonstrated and discussed. This clinic is held at the St. Louis City Sanitarium. Three hours a week for one trimester. 33 hours. Dr. Lewald

#### Dermatology

Martin F. Engman, M.D. . . Clinical Professor of Dermatology  
Frederick Ebersohn, Ph.D. . . Associate in Dermatology  
William H. Mook, M.D. . . . Instructor in Clinical Dermatology

Richard S. Weiss, M.D. . . . Assistant in Clinical Dermatology  
 Adolph H. Conrad, M.D. . . Assistant in Clinical Dermatology  
 John A. Borghoff, M.D. . . Assistant in Clinical Dermatology

### Third Year

(a) DERMATOLOGY. A lecture course on diseases of the skin and syphilis, by which the student will be prepared to understand clinical dermatology in the succeeding year. This course will be a general survey of the etiology, symptomatology, pathology, and treatment of skin diseases and the history and pathology of syphilis. Second trimester. 11 hours. Professor Engman

### Fourth Year

(b) DERMATOLOGY. A clinical course, conducted in the Dispensary, in which the student examines patients and is instructed in the diagnosis and treatment of diseases of the skin, and syphilis. 33 hours. Professor Engman, Dr. Mook

### Medical Jurisprudence

George C. Mackay, LL.B. . . Instructor in Medical Jurisprudence

MEDICAL JURISPRUDENCE. A course given in the fourth year embracing medical evidence and testimony; expert testimony; dying declarations; rights of medical witnesses; establishing identity from living and dead bodies; sudden death from natural causes and by violence; criminal acts determined by medical knowledge; the legal relation of physician to patients and the public; insanity; and malpractice. 22 hours.

### Surgery

- ✓ Evarts A. Graham, M.D. . . Professor of Surgery
- ✓ Montrose T. Burrows, M.D. . Associate Professor of Experimental Surgery
- ✓ Sherwood Moore, M.D. . . Associate in Surgery (Radiology)
- ✓ Edwin P. Lehman, M.D. . . Instructor in Surgery
- ✓ Glover H. Copher, M.D. . . Assistant in Surgery
- ✓ Earl C. Padgett, M.D. . . Assistant in Surgery
- ✓ George B. Garrison, M.D. . . Assistant in Surgery
- ✓ George W. Belcher, M.D. . . Assistant in Surgery
- ✓ William H. Chambers, Ph.D. . Assistant in Experimental Surgery

*Buff S. Allen  
 Bradford L. Goldsby  
 Fred J. Foster  
 Fred J. Foster  
 Klemme*

*Asst in Surgery*



- P. K. Webb*  
*Kirk Martin* } 5 student fellows in  
*Deutsch* } surgery.
- 
- ~~Mynie G. Peterman, M.D.~~ . . . Fellow in Surgery  
~~Julian Y. Malone, M.S.~~ . . . Fellow in Neurological Surgery  
*Rice*
- 
- ✓ Paul Y. Tupper, M.D. . . . Clinical Professor of Surgery  
 ✓ Harvey G. Mudd, M.D. . . . Clinical Professor of Surgery  
 ✓ Nathaniel Allison, M.D. . . . Professor of Clinical Orthopedic Surgery  
 ✓ Ernest Sachs, M.D. . . . Professor of Clinical Neurological Surgery  
 ✓ Major G. Seelig, M.D. . . . Professor of Clinical Surgery  
 ✓ Willard Bartlett, M.D. . . . Associate in Clinical Surgery  
 ✓ Vilray P. Blair, M.D. . . . Associate in Clinical Surgery  
 ✓ Malvern B. Clopton, M.D. . . . Associate in Clinical Surgery  
 ✓ John R. Caulk, M.D. . . . Associate in Genito-Urinary Surgery  
 ✓ Barney Brooks, M.D. . . . Associate in Clinical Surgery  
 ✓ Arthur O. Fisher, M.D. . . . Associate in Clinical Surgery  
 ✓ J. Archer O'Reilly, M.D. . . . Associate in Clinical Orthopedic Surgery  
 ✓ Charles A. Stone, M.D. . . . Instructor in Clinical Orthopedic Surgery  
 ✓ *Edwin P. Lehman, M.D.* . . . *Instructor in Clinical Surgery*  
 ✓ William M. Robertson, M.D. . . . Assistant in Clinical Genito-Urinary Surgery  
 ✓ H. McClure Young, M.D. . . . Assistant in Clinical Genito-Urinary Surgery  
 ✓ Ellis Fischel, M.D. . . . Assistant in Clinical Surgery  
 ✓ Harry G. Greditzer, M.D. . . . Assistant in Clinical Genito-Urinary Surgery  
 ✓ Warren R. Rainey, M.D. . . . Assistant in Clinical Surgery  
 Forest H. Staley, M.D. . . . Assistant in Clinical Surgery  
 Leon C. McAmis, M.D. . . . Assistant in Clinical Surgery  
 J. Edgar Stewart, M.D. . . . Assistant in Clinical Orthopedic Surgery

### Second and Third Years

1. INTRODUCTION TO SURGERY. A laboratory, demonstration and lecture course in which are studied certain fundamental processes of physiology and pathology as applied to surgery. Special



emphasis is laid on the growth of tissues, with particular reference to wound healing and transplants, the effects of tissue asphyxia and similar subjects. Attention is directed to a study of the processes involved rather than merely to the end results. The students also test and practice various methods of sterilization of hands, instruments, etc., using bacterial cultures as checks on the methods. The course includes the demonstration of patients who illustrate various points under discussion. Five hours weekly during the second trimester of the second year. 55 hours.

Professor Graham and others

2. SURGERY. The course is subdivided as follows:

(a) SURGICAL OUT CLINIC. For one trimester, four times weekly, beginning with the third trimester of the second year, a third of the class serve as dressers in the Surgical Out Clinic. Cases are examined by the students and demonstrated to them. Under the supervision of the assistants, the students take histories and apply dressings and bandages.

Professor Graham, Professor Sachs, and Assistants

(b) SURGICAL RECITATIONS. A weekly recitation during the fall and spring trimesters on assigned surgical reading. A standard text-book is followed, and so far as possible the essentials not given in other courses are covered. 22 hours.

Professor Seelig

(c) FRACTURES. Demonstrations, conferences and lectures on the more common fractures. Patients both in the hospitals and in the dispensary will be used in this course. One hour weekly during the second trimester. 11 hours.

Professor Sachs, Dr. Brooks, and Dr. Lehman

(d) OPERATIVE SURGERY. A three-hour exercise given weekly during the second trimester of the third year. Actual case histories are discussed, and the operations indicated from these discussions are performed on animals by the students. The surgical technique is as rigid as in the operating room, and it is required that the operations shall be performed without pain to the animal. The course is given in two sections. 33 hours.

Professor Sachs, Dr. Fisher

(e) **SURGICAL CLINIC.** A weekly clinic throughout three trimesters. See Course 4 (b). 33 hours. Professor Graham

(f) **SURGICAL CONFERENCE.** The pathology, diagnosis, and treatment of surgical conditions, as illustrated by ambulatory out-patient cases, are discussed. A weekly exercise during three trimesters. 33 hours. Professor Sachs

(g) **GENITO-URINARY SURGERY.** Lectures and recitations in genito-urinary surgery. Second trimester, third year. 11 hours. Dr. Caulk

**3. SURGICAL PATHOLOGY.** A weekly exercise of two hours for three trimesters, at which specimens from the operating room and from the museum are studied in gross and microscopically. Case histories are presented with the specimens. 66 hours.

Dr. Brooks, and other members of the department

#### Third and Fourth Years

**4. SURGERY.** The course is subdivided as follows:

(a) **SURGICAL WARDS.** For one trimester the student serves as assistant in the surgical wards from 9 a. m. to 12 m. five days a week.

Rounds are made from 9 to 10 a. m. Professor Graham and the surgical resident discuss the general surgical cases. Professor Sachs makes rounds on the special neurological cases once a week. Professor Allison, Dr. Caulk, Dr. Blair, and Dr. Clopton make rounds from time to time on their special cases.

The students, under the direction of the house staff, take case histories, make physical examinations, and the usual laboratory examinations. They assist at operations and with the anæsthetic, and do some of the surgical dressings. They also attend autopsies performed on the cases studied by them and are required to be present at the weekly pathological conference at which these cases are discussed. (See Pathology 4.) One day each week the group spends the period from 9 a. m. to 12 m. at the St. Louis Children's Hospital, where Professor Allison demonstrates the orthopedic cases and Dr. Clopton the general surgical cases. 198 hours.

Professor Graham, Professor Allison, Professor Sachs,  
Dr. Caulk, Dr. Clopton, Dr. Blair,  
Dr. Fisher, the Resident

(b) **SURGICAL CLINIC.** A weekly exercise throughout three trimesters. Students of the fourth year examine the patients and present the cases for discussion. Students of the third year attend this exercise. 33 hours.

Professor Graham, Professor Sachs

(c) **LECTURES ON SURGERY.** Once a week for three trimesters. Lectures will be given by different men on subjects of special surgical importance and interest. 33 hours.

Professor Graham, and others

5. **GENITO-URINARY OUT CLINIC.** The student serves as dresser in the Genito-Urinary Out Clinic six times a week for one-half trimester under the same conditions as in Course 2. 33 hours.

Dr. Caulk, and Assistants

6. **ORTHOPEDIC SURGERY.** Instruction is given at the Barnes Hospital and at the St. Louis Children's Hospital as described in Course 4 (a). Special lectures on this subject are given in Course 4 (c).

Professor Allison, Dr. O'Reilly

7. *Operative Surgery on the Cadaver.* Two hours weekly during the third trimester of the fourth year. Instruction is given by the actual practice of surgical operations performed on the cadaver. 22 hours.

Professor Tupper

8. *Advanced Operative Surgery.* Two-hour exercises are given once weekly during the first trimester of the fourth year. The students are instructed in the technique of special operations by performing these operations on animals under regulations of the surgical operating room, and are encouraged to work at some unsolved problem. 22 hours.

Dr. Bartlett

9. *Surgical Pathology.* Members of the Surgical Group of the third and fourth year classes take charge of the specimens which are received at the Surgical Laboratory and under the supervision of the staff describe the gross material and make the microscopic diagnosis.

10. *Principles of Roentgenology.* A course of lectures one hour a week for one trimester of the fourth year on X-ray diagnosis. Lectures and demonstration of plates. Dr. Moore

11. *Research in Surgery.* Specially qualified students are encouraged to undertake research in problems bearing on surgery in the laboratories of the department.

12. *Journal Club.* Approved students may attend the staff journal club, which meets weekly, at which current literature of interest is discussed.

### Ophthalmology

Arthur Eugene Ewing, M.D. Clinical Professor of Ophthalmology

Meyer Wiener, M.D. . . . Associate in Clinical Ophthalmology  
 William E. Shahan, M.D. . . Associate in Clinical Ophthalmology  
 William F. Hardy, M.D. . . . Associate in Clinical Ophthalmology  
 Frederic O. Schwartz, M.D. Assistant in Clinical Ophthalmology  
 M. Hayward Post, M.D. . . . Assistant in Clinical Ophthalmology  
 Lawrence Post, M.D. . . . Assistant in Clinical Ophthalmology  
 Harvey D. Lamb, M.D. . . . Assistant in Clinical Ophthalmology  
 Max W. Jacobs, M.D. . . . Assistant in Clinical Ophthalmology  
 Clyde P. Dyer, M.D. . . . Assistant in Clinical Ophthalmology

(a) OPHTHALMOLOGY. Eleven lectures are given in the second trimester of the third year. 11 hours. Professor Ewing

(b) OPHTHALMOLOGY. Practical instruction is given to small sections of the fourth year class twice weekly during one trimester. Under the supervision of instructors, the students take histories, make complete examinations, and carry out the routine treatment. 44 hours. Professor Ewing, Dr. Wiener, and Assistants

(c) OPHTHALMOLOGICAL PATHOLOGY. A course in pathology of diseases of the eye, consisting of lectures, demonstrations, and recitations, is given during the first trimester of the fourth year. 11 hours. Dr. Shahan

### Otology

John B. Shapleigh, M.D. . . . Clinical Professor of Otology  
 Harry W. Lyman, M.D. . . . Associate in Clinical Otology  
 Isaac D. Kelley, M.D. . . . Instructor in Clinical Otology  
 Arthur W. Proetz, M.D. . . . Assistant in Clinical Otology  
 Millard F. Arbuckle, M.D. . . Assistant in Clinical Otology

(a) **Otology.** Eleven lectures are given during the third trimester of the third year. 11 hours.

Professor Shapleigh, and Assistants

(b) **Otology.** Practical instruction is given to sections of the class during the third trimester of the third year and the first and second trimesters of the fourth year, each section attending four hours a week during one trimester. Cases are demonstrated and patients are assigned to the students, who are required, under supervision, to make examinations and diagnoses, and carry out routine treatment. 44 hours.

Professor Shapleigh, and Assistants

### **Laryngology and Rhinology**

Greenfield Sluder, M.D. . . . Clinical Professor of Laryngology  
and Rhinology

William E. Sauer, M.D. . . . Instructor in Clinical Laryngology  
and Rhinology

H. Edward Miller, M.D. . . . Instructor in Clinical Laryngology  
and Rhinology

C. Armin Gundelach, M.D. . . . Instructor in Clinical Laryngology  
and Rhinology

William M. C. Bryan, M.D. . . . Instructor in Clinical Laryngology  
and Rhinology

Alphonse F. Dames, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

Millard F. Arbuckle, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

Eugene R. Van Meter, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

Wellwood M. Nesbit, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

Arthur W. Proetz, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

Herman B. Miller, M.D. . . . Assistant in Clinical Laryngology  
and Rhinology

(a) **LARYNGOLOGY AND RHINOLOGY.** Eleven lectures are given during the second trimester of the third year. 11 hours.

Professor Sluder



(b) LARYNGOLOGY AND RHINOLOGY. Small sections of the fourth year class receive practical instruction twice weekly in the Out Patient Clinic. 44 hours.

Professor Sluder, and Assistants

### Obstetrics and Gynecology

Henry Schwarz, M.D. . . . Clinical Professor of Obstetrics  
Harry S. Crossen, M.D. . . Associate in Clinical Gynecology  
George Gellhorn, M.D. . . . Associate in Clinical Gynecology  
Fred J. Taussig, M.D. . . . Associate in Clinical Gynecology  
Grandison D. Royston, M.D. . Instructor in Clinical Obstetrics  
Otto H. Schwarz, M.D. . . . Instructor in Clinical Obstetrics  
Adolph G. Schlossstein, M.D. Assistant in Clinical Obstetrics  
Quitman U. Newell, M.D. . . Assistant in Clinical Obstetrics  
Frank P. McNalley, M.D. . . Assistant in Clinical Obstetrics  
Raymond M. Spivy, M.D. . . Assistant in Clinical Obstetrics  
Otto St. Clair Krebs, M.D. . Assistant in Clinical Obstetrics

### Second and Third Years

1. OBSTETRICS. This course, beginning in the third trimester of the second year and ending in the second trimester of the third year, consists of recitations and demonstrations based upon assigned reading of a prescribed text-book and is supplemented by laboratory work and clinical exercises.

Instruction in the third trimester of the second year covers the anatomy and physiology of the female organs of generation, including the anatomy of the pelvis, ovulation and menstruation, fertilization and development of the ovum, and serves as an introduction to all courses in Obstetrics and Gynecology.

The work of the first trimester of the third year deals with the physiology of pregnancy, labor, and the puerperium; the signs and symptoms of pregnancy are studied in the dispensary and on house patients; the mechanism of labor is demonstrated in the delivery room; puerperal involution, lactation, and the physiology of the newborn are taught in the lying-in wards and in the nursery.

The second trimester of the third year is devoted to the study of the pathology of pregnancy, labor, and the puerperium.

Throughout the entire course the students are drilled in ob-



stetrical diagnosis, both by laboratory and by clinical methods, to prepare them for the clinical work in Obstetrics which begins with the third trimester of the third year.

(a) Recitations and Demonstrations. 55 hours.

Professor Schwarz, Dr. Royston, Dr. Newell

(b) Laboratory work and clinical exercises (in sections of one-third of the class) four hours a week for eleven weeks. 44 hours.

Dr. O. H. Schwarz

2. GYNECOLOGY. Recitations and demonstrations covering the essentials and supplementing the practical work which is done in connection with Obstetrics 1. One hour a week during the first and second trimesters of the third year. 22 hours.

Dr. Gellhorn, Dr. Taussig

### Third and Fourth Years

3. OBSTETRICS. The course is arranged as follows:

(a) Attendance on Obstetrical Cases. The obstetrical service furnishes approximately 900 cases a year (about 450 hospital and about 450 out-clinic cases). To each student is assigned a minimum of fifteen cases which he watches during pregnancy, attends personally during delivery, and visits during the lying-in period; all work is done under supervision of instructors; the histories furnished by the students are discussed in clinical conference. Cases of special interest and those requiring major operations are delivered before the sections of the class and do not count towards the minimum requirement of fifteen cases for each student. From the beginning of the third trimester of the third year to the end of the second trimester of the fourth year (time exclusive of the hours allotted to Obstetrics in the general schedule).

Professor Schwarz, Dr. Royston, Dr. O. H. Schwarz,  
and Assistants

(b) Clinical Lectures on Selected Obstetrical and Gynecological Topics. One hour a week during the first and second trimesters of the fourth year. 22 hours.

Professor Schwarz, and Associates

*Gynec. - I Trm. 11 hrs*

(c) Obstetrical and Gynecological Ward Work. Sections composed of one-sixth of the class act as clinical clerks in the obstetrical and gynecological division of the Barnes Hospital for a period of five and a half weeks. The members of these sections, under the guidance of instructors, participate in the entire work of the division; they take histories and make examinations (including those of the laboratory); make ward rounds; perform minor operations under supervision and assist at major operations; attend clinical conferences and manikin practice. Eighteen hours a week for five and a half weeks. 99 hours.

Professor Schwarz, Dr. Crossen, Dr. Royston,  
Dr. O. H. Schwarz, Dr. Schlossstein

4. *Special Investigation and Research.* Carefully kept records of many thousand cases, large clinical material, excellent laboratory facilities, and a sufficient number of instructors enable the department to offer those who possess the necessary training an opportunity for original work under the guidance of instructors detailed for the purpose.

### Pediatrics

W. McKim Marriott, M.D. . . . Professor of Pediatrics  
Philip C. Jeans, M.D. . . . Associate Professor of Pediatrics  
Jean V. Cooke, M.D. . . . Associate Professor of Pediatrics  
Samuel W. Clausen, M.D. . . . Associate in Pediatrics  
Kirsten Utheim, M.D. . . . Instructor in Pediatrics  
Wayne A. Rupe, M.D. . . . Assistant in Pediatrics

George M. Tuttle, M.D. . . . Clinical Professor of Pediatrics  
Borden S. Veeder, M.D. . . . Professor of Clinical Pediatrics  
Adrien S. Bleyer, M.D. . . . Instructor in Clinical Pediatrics  
Theodore C. Hempelmann, M.D. . . . Instructor in Clinical Pediatrics  
Hugh McCulloch, M.D. . . . Instructor in Clinical Pediatrics  
Phelps G. Hurford, M.D. . . . Assistant in Clinical Pediatrics  
Maurice J. Lonsway, M.D. . . . Assistant in Clinical Pediatrics  
Park J. White, M.D. . . . Assistant in Clinical Pediatrics

### Second and Third Years

1. PEDIATRICS. Physical diagnosis as applied to infants and

children. Bedside instruction to small groups of students in the wards of the St. Louis Children's Hospital. Two hours a week for one trimester. 22 hours. Dr. McCulloch, Dr. Rupe

2. PEDIATRICS. A systematic course in General Pediatrics. Recitations, lectures, clinical demonstrations, and discussions of case histories. The subjects considered include the growth and development of the normal child; hygiene and preventive medicine as applied to children; nutrition and feeding, especially of infants; the more important diseases of infants and children; the contagious diseases. Two hours a week for three trimesters. 66 hours. Professor Marriott, Dr. Clausen

### Third and Fourth Years

3. PEDIATRICS. The course is composed of the following subdivisions:

(a) Pediatric Ward Work. Examination of assigned cases and discussion of diagnosis and treatment. Individual instruction in preparation of milk formulæ, examination of throat cultures, and such procedures as lumbar puncture, intubation, administration of antitoxin, vaccination, etc. Daily for five and one-half weeks. 33 hours.

Professor Marriott, Professor Veeder,  
Professor Jeans, Professor Cooke

(b) Pediatric Dispensary. Practical work in history taking, physical and laboratory diagnosis, and infant feeding. Two afternoons a week for one trimester. 44 hours.

Professor Jeans, and Assistants

### Fourth Year

4. PEDIATRIC CLINIC. A weekly amphitheater clinic is held throughout the school year. Demonstration of selected cases from the Hospital and from the Dispensary. 33 hours.

Professor Marriott, Professor Tuttle, Professor Veeder,  
Professor Jeans, Dr. Clausen, Dr. McCulloch

5. CLINICAL AND PATHOLOGICAL CONFERENCES. This course is given jointly by the Clinical Departments and the Department of Pathology. Each student is supplied with the clinical histories of the cases coming to autopsy. The pathological material is demonstrated and the cases discussed from the clinical and pathological

sides. Approximately one-third of the course is devoted to pediatric cases. (See Pathology 4.)

6. *Pediatrics*. Elective course. This course is offered during the last trimester of the fourth year. Students are required to make an intensive study of certain disease conditions from the clinical and laboratory standpoints and to report on assigned literature. 150 hours.

7. *Research*. Properly qualified students may engage in clinical or laboratory research under the direction of the Pediatric Staff. Fourth-year students may elect to do research in place of Course 6.

8. *Pediatric Journal Club*. Meets bi-weekly. Reports on current literature by members of the staff. Open to fourth-year students.

### Preventive Medicine

#### Third Year

1. PREVENTIVE MEDICINE AND HYGIENE. Lectures upon the transmission and prevention of infectious diseases (including the important tropical diseases), infant mortality, occupational diseases, the fundamentals of military hygiene, and some other subjects bearing upon the maintenance of health, will be given twice a week during the first trimester and once a week during the second. 33 hours.

Dr. Bleyer

### Social Medicine

#### Third Year

1. SOCIAL MEDICINE. Lectures and conferences upon various medical phases of Social Medicine will be given under the direction of the Faculty Committee for the Department of Social Service. These lectures and conferences will be conducted by various members of the Faculty, by social workers, and by several qualified persons not connected with the University. Special emphasis will be laid upon the relation of social and medical problems in diagnosis and treatment, and upon the organization and use of medical and philanthropic institutions. The object of the course is to acquaint students with the methods of medical social work and to stimulate interest in the social aspects of medicine. One hour a week for one trimester. 11 hours.

### Military Science and Tactics

Under the authority of the Army Reorganization Act of June 4, 1920, there has been established in Washington University School of Medicine a Medical Corps Unit of the Reserve Officers' Training Corps. Instruction is given by a medical officer of the Regular Army detailed to the School as Assistant Professor of Military Science and Tactics. The course is given in order to instruct medical students in the outlines of military medicine as a preparedness measure.

Enrollment in the course in Military Science and Tactics is voluntary.

Military Science and Tactics is divided into a basic course and an advanced course. The basic course is given in the first two years and the advanced course in the last two years. A student who enrolls in the basic course need not continue in the advanced course unless he so elects. Enrollment in the advanced course depends upon having completed satisfactorily the basic course and having demonstrated fitness and ability to take up the advanced work. In case a student who is enrolled in either the basic or advanced course severs his connection with the School, he automatically terminates his obligation to the Government insofar as this school is concerned. Students who are enrolled in the advanced course will receive commutation of subsistence at the rate of the value of an army ration (1919, fifty cents per day) for the last two years that they are members of the Medical Corps Unit. It is required by the law, as set forth in the above-mentioned act, that all students must attend one summer encampment in order to have completed the advanced course in Military Science and Tactics. Students attending this encampment are paid at the rate of \$30 per month, and in addition receive traveling allowance of five cents per mile, quarters, rations, medical attendance, and medical supplies while attending the camp. The summer encampment is held at Carlisle, Pennsylvania.

Upon graduation and completion of the advanced course, the student becomes eligible for a commission in the Medical Officers' Reserve Corps.



### First and Second Years

1. **BASIC COURSE.** This course consists of lectures and recitations devoted to medico-military instruction and particularly to teaching the organization and functions of the Army in peace and war, the relations of the Medical Department therein, and the basic principles of the following subjects: hygiene, customs of the service, equipment of the sanitary soldier, elements of sketching and map reading, posts of the Medical Department in open and stable warfare, and toxic gases in warfare.

### Third and Fourth Years

2. **ADVANCED COURSE.** There is further development of the subjects given in the basic course by lectures and recitations upon the manual and pamphlets of the Medical Department of the U. S. Army. These deal with organization and equipment of the sanitary units attached to a regiment, brigade, division, corps, and army. The instruction also includes casualty expectancy tables, the supply system of the army, hospitalization, military psychiatry and malingering, army regulations, field sanitary regulations, rules of land warfare, abstracts of the Manual for Courts Martial, and organized voluntary aid in war.

3. **MILITARY INSTRUCTION AT SUMMER ENCAMPMENTS.** The camp to be established for the training of Medical Corps R. O. T. C. Units will be maintained at Carlisle, Pennsylvania, where the Medical Department has established a Field Training School. Attendance of all students taking the basic course is voluntary, and of all students taking the advanced course, compulsory for at least one encampment, either at the end of the second year or the end of the third year, or as may be modified by army regulations. Upon arrival at the camp, students are issued the necessary uniforms and equipment by the Government. The instruction is practical, including military and sanitary tactics and an opportunity to demonstrate in the open the theoretical knowledge acquired in the military courses at the School of Medicine. As far as possible, actual field service conditions will be simulated. The students will be required to live under tentage. Physical training, including athletic competition, will be given special attention.



## TRAINING SCHOOL FOR NURSES

- Helen Wood, A.B., R.N. . . . Director of the School and Superintendent of Nurses  
Helen O. Potter, R.N. . . . Assistant Superintendent of Nurses  
Susie A. Watson, B.S., R.N. . Theoretical Instructor  
Minnola Stallings, R.N. . . Practical Instructor

The Washington University Training School is under the management and direction of the University through the Executive Faculty of the School of Medicine. This co-ordination makes possible unusual opportunities for the adequate education of nurses.

During the preparatory course of six months, instruction is given in the laboratories and by the departmental staffs of the School of Medicine in anatomy, chemistry, physiology, and bacteriology; and class-room instruction and practice in all the fundamental nursing procedures, hygiene, history of nursing, drugs and solutions, ethics, nutrition and cookery, are given by the nursing staff.

Following this preliminary course the pupils are given instruction in the wards of Barnes and St. Louis Children's Hospitals and the Washington University Dispensary. In addition to medical and surgical work, opportunities are given for experience in diet kitchen, operating room, obstetrical and contagious wards.

During the last year students may elect special work in the Social Service Department, the Training School Office and Public Health Nursing. Visiting nursing, baby welfare and tuberculosis work are phases of Public Health Nursing to which pupils are introduced. A few well qualified students may be placed in charge of wards for executive experience.

Throughout the three years' course, in addition to the practical instruction in the wards, series of lectures are given by the Hos-

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pital staffs and technical instruction by the staff of the Training School. Included in the curriculum is a required course in English, which is given by the Department of English of the University.

Credit is given to students holding degrees from recognized colleges or universities. One scholarship each year is available for some member of the Senior class who may wish to take graduate work.

The separate catalogue of the Training School may be obtained upon application to the office of the Director of the School, 600 South Kingshighway.

## DEPARTMENT OF SOCIAL SERVICE

Agnes G. Deans, R.N. . . . .	Director
Mrs. Berenice L. Marshall . . . . .	Assistant
Alice C. Slater, R.N. . . . .	Assistant

The Department of Social Service carries out its work in the Washington University Dispensary, the Barnes Hospital, and the St. Louis Children's Hospital. At the head of the Department of Social Service is a director, who has two assistants and twelve paid workers, each of whom is responsible for a special type of work.

Students in the School of Medicine may volunteer in the department and gain thereby a knowledge of the living conditions of the poor, which is of great value to them in their study of the diseases treated in the Dispensary, and which gives them experience in working out the individual problems of the patients seeking relief. Such students gain as well an understanding of the function of social agencies in community life.

Nurses who are undergoing training are given instruction in the methods of carrying out social service work in hospitals and dispensaries, as well as the relationship which social service work bears to medicine and nursing. Any graduate of the Training School for Nurses may carry on practical work in the Department of Social Service.

## POST-GRADUATE INSTRUCTION

### GENERAL STATEMENT

The graduate studies are planned to meet the requirements of three distinct types of students: (1) Those who desire to enroll in the Graduate School of Washington University with the purpose in view of complying with the requirements necessary for obtaining a graduate degree in medicine. These requirements are outlined in the catalogue of Washington University; and each applicant for such graduate work will be considered individually after receipt of his application. (2) Those who desire to spend a year or more of resident work, leading to ultimate qualification as a specialist. (3) Those who wish to spend from four to twelve weeks in brushing up on clinical or laboratory methods, in order to keep abreast of the times, and to maintain a high degree of personal professional efficiency. The courses will utilize all the teaching facilities at the disposal of the Washington University School of Medicine, the various laboratories, Barnes Hospital, Washington University Dispensary, The St. Louis Children's Hospital, City Hospital No. 2, Jewish Hospital, and the Library and Reading Room of the Washington University School of Medicine.

### ADMISSION

The following are eligible for admission:

A. *Registered Practitioners.* Any reputable person licensed to practice medicine may be admitted to such courses as he is qualified to take.

B. *Graduates in Medicine* who are not registered practitioners. Graduates of an acceptable medical school, who are not registered practitioners, are eligible for admission.

C. *Undergraduates in Medicine.* Undergraduates of The School of Medicine of Washington University, or of medical schools in Class A (A.M.A. classification) may be admitted for such courses as they are competent to take. During the sessions of their own schools such undergraduates will be accepted only

by special vote of the Executive Faculty of Washington University School of Medicine.

The Faculty of The School of Medicine of Washington University reserves the right:

(1) To judge the qualifications of all candidates for admission and to refuse such as in its opinion are undesirable.

(2) To terminate a student's connection with the School for such reason as it deems proper.

(3) To refuse to admit a student to any course for such reason as it considers proper, even if he be admitted to other courses in the School.

(4) To exclude a student from any course to which he may have been admitted, if in the opinion of the faculty he is not qualified to continue the course, or for any other reason which the faculty may consider proper.

These reservations are made especially for the benefit of the students. In those instances where it may be necessary to exclude a student, a refund of fee will be made, but this refund is never to be more than one-half of the total fee for the course.

### FEES

In the descriptive list of courses that follows, the fee for each course will be appended after the description of the course. Where the faculty has combined various studies into a so-called combined course (such, for example, as in Surgery, Pediatrics, Eye, Ear, Nose, and Throat, etc.), the fee is specially determined and will be found stated in the description of these various combined courses.

### APPLICATION AND REGISTRATION

Application for courses should be made to the Registrar, Washington University School of Medicine, Scott and Euclid Avenues, St. Louis, Mo.

In his application the candidate must state: Name; residence; date of birth; when and where medical diploma was obtained; when and where hospital internship, if any, was pursued; when and where licensed (if licensed); type of practice engaged in (general or a specialty). He must state the course or courses

he desires to take. With his application the applicant must enclose a registration fee of \$10.00. No course will be available to any applicant who fails to send this registration fee with his application. The registration fee will constitute a part payment of the cost of the course. Fees for all courses are payable in advance on the first day of the course.

Applications will be considered in the order of their receipt. It is important, therefore, since most of the courses are limited as to the number of students who may participate in them, that applications be sent in at the earliest moment.

## COURSES OF INSTRUCTION

### Internal Medicine

The Department of Internal Medicine of Washington University offers to Doctors of Medicine a short course in internal medicine. The course covers a period of six weeks, and is designed to consume the entire time of the students. It consists of a series of small courses covering the more important special divisions of internal medicine. The courses are so arranged as to devote the entire mornings to clinics, ward rounds and lectures, while the afternoon will be devoted to laboratory work.

The fee for the entire course for a full day of instruction over a period of six weeks is \$100.00. The fee for a half day of instruction over a period of six weeks is \$50.00. The fee for single courses will be \$25.00 each, except for course No. 7, for which the fee will be \$50.00, and where otherwise noted.

The next course will commence on Monday, April 4, 1921, and will continue until Saturday, May 14, 1921.

The courses comprising the full course are outlined below:

1. GENERAL MEDICINE. Barnes Hospital, Mondays, Tuesdays, Wednesdays, Fridays, 9 to 10 a. m. City Hospital No. 2, Thursdays and Saturdays, 9 to 11 a. m.

Professors Dock, Smith, and Dr. Luten

A series of daily visits to the medical wards of Barnes Hospital and City Hospital No. 2, in which the diagnosis and treatment of disease is discussed and exemplified by the study of patients.



2. DISEASES OF CHEST. Washington University Dispensary. Mondays and Wednesdays, 10 a. m. to 12 m. Dr. Singer

A series of twelve clinical lectures and demonstrations in the Out-Patient Department on diseases of the chest. Particular emphasis is laid on the study of pulmonary tuberculosis, including physical diagnosis, fluoroscopy, roentgenography, the use of tuberculin and pneumothorax.

3. DISEASES OF THE HEART. Washington University Dispensary. Tuesdays, 10 a. m. to 12 m. Dr. Strauss

A series of six clinical lectures and demonstrations in the Out-Patient Department, including a discussion of the graphic methods of recording cardiac disturbances.

4. DISEASES OF METABOLISM. Barnes Hospital. Tuesdays, 12 m. to 1 p. m.; Fridays, 10 a. m. to 12 m. Dr. Olmsted

A series of twelve lectures and clinical demonstrations with special emphasis on the more recent methods of study of diabetes, nephritis, and diseases of the endocrine glands.

5. DISEASES OF THE CENTRAL NERVOUS SYSTEM. Washington University Dispensary. Mondays and Thursdays, 12 m. to 1 p. m. Professor Schwab, Dr. Alford

A series of twelve clinics on selected cases exhibiting the more common disorders of the central nervous system.

6. DISEASES OF THE GASTRO-INTESTINAL SYSTEM. Washington University Dispensary. Wednesdays and Fridays, 12 m. to 1 p. m. Dr. Gorham

A series of twelve clinical lectures on the diagnosis and treatment of disorders of the stomach and intestines.

7. CLINICAL MICROSCOPY AND CHEMISTRY. Washington University Dispensary. Daily, except Saturdays, 2 to 4:30 p. m. Dr. Chesney, Dr. Wilson

A series of thirty lectures and laboratory exercises in the laboratory methods of diagnosis of disease. Subjects discussed are urine, sputum, gastric contents, feces, blood and puncture fluids. Twenty-four periods of 2½ hours each.

8. CLINICAL-PATHOLOGICAL CONFERENCE. Thursdays, 4:30 to 5:30 p. m.

A series of weekly conferences of the staffs of the Clinical and Pathological departments in which cases that have come to autopsy are discussed from the point of view of the clinical and pathological findings.

#### SPECIAL INTENSIVE COURSES IN MEDICINE

For those who desire more intensive courses in some of the divisions of Internal Medicine, the following are offered:

TUBERCULOSIS. Washington University Dispensary.

Dr. Singer and assistants

9. This course consists of a series of didactic lectures on the epidemiology of tuberculosis, the physics of sound and light in relation to physical diagnosis of the chest, fluoroscopic and roentgenographic examination of the lungs, the use of tuberculin in the diagnosis and treatment of tuberculosis, the use of artificial pneumothorax and the general treatment of tuberculosis. In addition there will be practical exercises on patients covering the above subjects. Special stress will be laid upon the social aspects of the tuberculosis problem, including demonstrations by social workers trained in this field. Students will be expected to devote their entire time daily to this work, and the course will extend over a period of six weeks. Limited to not more than seven students and not less than three. Fee \$50.00.

10. A special course in the technique of roentgenographic and fluoroscopic examination of the chest, designed to supplement the preceding course. Limited to not more than seven students and not less than three. Fee \$50.00.

GASTRO-ENTEROLOGY. Washington University Dispensary.  
Tuesdays, 10 a. m. to 12 m.

Dr. Larimore

11. This course consists of a series of practical exercises in diseases of the gastro-intestinal system, in which the anamnesis and the examination of cases are taken up. New cases will be carried through their history and physical examination with special attention given to developing the symptomatology of gastro-intes-

tinal diseases and other complications. A special outline for developing the anamnesis is followed. The course will last indefinitely, depending upon the applicant's wishes. Limited to four students. Fee \$50.00.

12. *Proctoscopy*. Wednesdays and Thursdays, 12 m. to 1 p. m.

This course consists of a series of demonstrations and practical exercises in the technique of making proctoscopic examinations. Duration of course, four weeks. Limited to four students. Fee \$25.00.

13. Fridays, 12 m. to 1 p. m.

This course consists of a clinical review of completed cases of gastro-intestinal disease in which a final diagnosis has been determined by X-ray examination, operation, or autopsy. Limited to eight students. Fee \$25.00.

14. PHYSICAL DIAGNOSIS. City Hospital No. 2. Daily, 10 a. m. to 12 m. Dr. Luton

A series of practical exercises and demonstrations in the principles and technique of elementary physical diagnosis. Duration, two weeks. Fee \$25.00.

The foregoing special intensive courses are not given at stated periods of the year, but will be given upon application, subject to the conditions noted. The time will have to be arranged between the applicants and instructors.

SCHEDULE FOR SIX WEEKS COURSE IN INTERNAL MEDICINE

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Ward Rounds Barnes Hospital (Course No. 1)	Ward Rounds Barnes Hospital (Course No. 1)	Ward Rounds Barnes Hospital (Course No. 1)	Ward Rounds City Hospital No. 2 (Course No. 1)	Ward Rounds Barnes Hospital (Course No. 1)	Ward Rounds City Hospital No. 2 (Course No. 1)
10 to 11	Diseases of Chest (Course No. 2)	Diseases of Heart (Course No. 3)	Diseases of Chest (Course No. 2)		Diseases of Metabolism Barnes Hospital (Course No. 4)	
11 to 12						
12 to 1	Neurology (Course No. 5)	Diseases of Metabolism (Course No. 4)	Gastro-Enterology (Course No. 6)	Neurology (Course No. 5)	Gastro-Enterology (Course No. 6)	Medical Clinic (Course No. 1)
2 to 4:30	Clinical Microscopy (Course No. 7)	Clinical Microscopy (Course No. 7)	Clinical Microscopy (Course No. 7)	Clinical Microscopy (Course No. 7)	Clinical Microscopy (Course No. 7)	
4:30 to 5:30				Clinical- Pathological Conference (Course No. 8)		

### Neurology

1. A course of neuro-pathology and study and interpretation of spinal fluids. Laboratory course four weeks. Daily (hours to be arranged later).

Professor Schwab, Dr. Alford, and Dr. Stevenson

This course is primarily intended for the general practitioner or internist who is somewhat interested in the field of neuro-psychiatry.

It is especially planned to meet the requirements of the general practitioner who is so situated that he finds it a difficult matter to obtain special neurological advice or consultation.

This course can be taken with Course 2, which is the clinical application of the ground work demonstrated in Course 1.

Lectures and demonstrations on the normal anatomy and histology of the central nervous system, together with the general physiology of the central nervous system.

A routine and detailed examination of microscopic sections of the important organic diseases of the central nervous system, with a study of tract degeneration, chiefly from the clinical point of view. The student will be expected in this course to make drawings of sections and prepare a laboratory book.

During this course special instruction will be given in the technique of lumbar puncture, examination of cerebro-spinal fluid, cell counts, simple chemical reactions for globulin, preparation and interpretation of collodin-gold test, etc.

2. NEURO-PSYCHIATRY. Four weeks. Daily (hours to be arranged later).

Professor Schwab and Dr. Jones

The course in Neuro-Psychiatry will be carried out in the Out-patient Department and the wards of the Barnes Hospital. An attempt will be made to demonstrate important diseases which occur in such material. As far as possible, it will be the purpose to make use of the information gained in the laboratory in its application to actual clinic work. Special attention will be given to syphilis of the central nervous system, methods of examination, the technique of testing special sense organs, preparation of visual fields, etc., in such a way that the general practitioner can master such methods for use in the everyday examination of neurological cases.

3. **PSYCHOMETRIC CLINIC.** Three times a week (days and hours to be arranged later). Dr. Smith

This course is designed to acquaint the practitioner with methods and interpretation of intelligence measurements.

This course is to be given with special reference to its use by men and women engaged in institutional work, or work with defective children, in juvenile court and social service work.

In this course the student will be personally instructed in obtaining the data necessary for arriving at and estimating the mental age of children and adults.

### Dermatology

The department of Dermatology offers four courses, as outlined below. These courses, if all of them are taken, will furnish the student with a comprehensive outlook on dermatology, but are not intended in any way to qualify him as a specialist. The fee for the four courses taken together is \$75.00. For each course taken separately the fee is \$20.00.

1. **INTRODUCTORY COURSE.** Washington University Dispensary. Daily, 3 to 4 p. m. Six weeks.

Professor Engman, Dr. Mook, Dr. Weiss, and Dr. Borghoff

This introductory course will consist of six lectures of an hour each upon the following subjects:

- (a) Inherent factors in diseases of the skin. (Dr. Engman.)
- (b) Cutaneous sensitization and its relationship to skin diseases. (Dr. Engman.)
- (c) The erythema group of skin diseases. (Dr. Weiss.)
- (d) Parasitic infections of the skin with demonstrations of animal parasites, fungi, and microorganisms. (Dr. Borghoff)
- (e) General therapy of skin diseases. (Dr. Mook.)
- (f) Special therapy of skin diseases: X-ray, radium, various electrical methods. (Dr. Engman.)

2. **GENERAL DERMATOLOGY.** Washington University Dispensary. Daily, 2 to 3 p. m. Six weeks.

Professor Engman, Dr. Mook, and Dr. Weiss

This course will consist of the clinical demonstration of patients



who present themselves at the dispensary for the cure of skin diseases. Methods of diagnosis and treatment will be outlined.

3. SYPHILIS. Washington University Dispensary. Six weeks.

(a) Daily clinic from 2 to 3 p. m., and night clinic from 6:30 to 7:30 p. m., Tuesdays, Thursdays, and Fridays, for purpose of diagnosis and treatment of various syphilitic conditions.

Dr. Conrad, Dr. Davis, and Dr. Coleman

(b) Demonstration of injection methods in the treatment of syphilis. Tuesdays and Thursdays from 2 to 3 p. m., and Mondays, 6:30 to 7:30 p. m.

Dr. Conrad, Dr. Davis, and Dr. Coleman

(c) Intramuscular and intravenous injection methods with mercury. Wednesdays and Saturdays, 2 to 3 p. m.; Tuesdays and Fridays, 6:30 to 7:30 p. m.

Dr. Conrad, Dr. Davis, and Dr. Coleman

(d) General treatment of syphilis. Two lectures, from 3 to 4 p. m.

Dr. Engman

4. SPECIAL COURSE ON SYPHILIS. Washington University Dispensary. Mondays, Wednesdays, and Fridays.

This course will consist of thirteen special lectures given by Professor Engman and Dr. Eberson on the following topics:

By Dr. Eberson—

- (a) History and general considerations as to etiology.
- (b) Biology of the *Spirocheta pallida*.
- (c) Technical procedures in the diagnosis and study of Spirochetes.
- (d) Distribution of *Spirocheta pallida* in syphilitic lesions.
- (e) *Spirocheta pallida* and so-called parasyphilis.
- (f) Transmission of syphilis.
- (g) Latent syphilis.
- (h) The carrier problem in syphilis.
- (i) Experimental syphilis.
- (j) Problems of immunity in syphilis.
- (k) Syphilis and the public health.
- (l) Research methods. Problems for students who wish to carry on investigations.

By Professor Engman—

- (m) General summary of the biological relationship between the tissue cells and the *Spirocheta pallida*.

To those students who wish to specialize in dermatology and who are willing to devote a year or more to intensive study of this subject, special opportunities will be offered on application.

### Surgery

The various surgical courses outlined below have been planned so as to constitute a Combined Course in Surgery of six weeks' duration (April 4 to May 15, 1921). To those seeking surgery, it is recommended that the combined course as offered be taken. The privilege is granted, however, to select single courses in Surgery from the list. The combined surgical course is limited to eight students. Fee for combined course, \$100.00.

1. SURGICAL OPERATIONS. Amphitheatre Barnes Hospital. Mondays, 10 a. m. to 12 m. Six weeks.

Professor Graham and staff

This course will consist not only in the witnessing of operations, but in a full discussion of the surgical principles involved, and of the pathogenesis of surgical diseases. It will be so conducted as to develop logically along with Courses 2 and 3. Fee, if not taken as part of the combined surgical course, \$25.00.

2. SURGICAL CLINIC. Barnes Hospital. Tuesdays, 12 m. to 1 p. m. Six weeks.

Professor Graham

A free discussion of surgical diseases as they present themselves affecting pre-operative and post-operative patients. Fee, if not taken as part of the combined surgical course, \$25.00.

3. POST-OPERATIVE TREATMENT. Barnes Hospital. Mondays, 2 to 4 p. m.

Professor Graham

This course will be in the nature of a clinical conference, aimed at emphasizing the importance of anticipating, recognizing, and treating the more important post-operative surgical complications. The following subjects will be discussed in full: Factors

of safety in surgery, and the determination of surgical risks, hemorrhage, shock, acute dilatation of the stomach, peritonitis, drainage, acidosis, infected wounds. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

4. GENERAL SURGICAL DIAGNOSIS AND TREATMENT. Jewish Hospital. Tuesdays, 9 to 11 a. m. Six weeks.

Professor Seelig and staff

In this course the surgical material of the Jewish Hospital will be used for the purpose of instruction in surgical diagnosis and treatment. Ward walks will be made and free discussions will be held both in the wards and in the operating room. Fee, if not taken as part of the combined surgical course, \$25.00. Attendance limited to eight.

5. MINOR SURGERY. Washington University Dispensary. Thursdays and Saturdays, 10 a. m. to 12 m. Six weeks.

Dr. Brooks, Dr. Fisher

During these hours the abundant and varied surgical material of the Dispensary will be reserved for post-graduate teaching. Chief emphasis will be laid on the treatment of minor surgical diseases, such as: infections of the hand, phlegmons, furuncles, carbuncles, cellulitis, infected wounds, superficial tumors, varicose ulcers, simple fractures, contusions, sprains, etc. In addition, a certain amount of time will be given to the diagnosis of more grave cases, admitted through the Dispensary to the Barnes Hospital, where the students may follow the course of treatment. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

6. SURGICAL PATHOLOGY. Surgical Laboratory. Mondays and Thursdays, 2 to 4 p. m. Six weeks.

Dr. Lehman

This is a course of twelve exercises in the pathology of the common surgical disorders, including appendicitis, gall-bladder disease, osteomyelitis, gastric ulcer, malignant diseases of the more common types, diseases of the breast, and the like. Material from the operating room, both fresh and preserved, will be studied and emphasis placed on the gross changes resulting from disease and the progress of these changes. The object of the course will be to correlate the underlying pathological processes with the

clinical course of surgical disease as seen by the practicing surgeon, and on the basis of this correlation to establish the principles of surgical treatment. If desired, the technique of making frozen sections will be demonstrated and an opportunity given for practice in the preparation and diagnosis of surgical material by this means. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

7. CLINICAL-PATHOLOGICAL CONFERENCE. Dispensary Building. Thursdays, 4:30 to 5:30 p. m. Six weeks.

Professor Opie

In this conference autopsy material is presented and discussed with reference to the clinical history preceding autopsy. The important gross and microscopical lesions are described in detail, with lantern slides. The medical and surgical aspects of the lesions are discussed before the class by the physicians and surgeons who conducted the treatment in the hospital. This course is open to all students without fee.

8. OPERATIVE SURGERY. Surgical Laboratory. Fridays, 2 to 4 p. m. Six weeks.

Professor Sachs

In these six exercises the more important abdominal operations will be performed by the students on animals. The operations will be conducted under the same rigid precautions regarding anaesthesia and asepsis, and with the same care for detail that obtains in the hospital operating room.

This course is limited to eight students, and will not be given if less than two applicants matriculate. Fee, if not taken as part of the combined surgical course, \$50.00.

9. ACUTE AND TRAUMATIC SURGERY. City Hospital No. 2. Wednesdays, 9 a. m. to 12 m. Six weeks.

Dr. Kirchner, Dr. Hyndman, Dr. Fischel, Dr. Lehman,  
Dr. Rainey

In this course a whole morning is devoted to the study of material in the surgical division of City Hospital No. 2. There is a large amount of acute and accident surgery at this institution, and this opportunity will be utilized to study, in detail:

(a) Traumatic surgery of the neck, face and thorax (including fractured mandible, gun-shot wounds and infections of the neck. (Dr. Fischel.)

(b) Acute abdominal surgery—appendicitis, cholecystitis, intestinal obstruction, and rupture of abdominal viscera. (Dr. Hyndman.)

(c) Traumatic injuries of the head, and the treatment of shock. (Dr. Lehman.)

(d) Gunshot wounds of the abdomen. (Dr. Kirchner.)

(e) Fracture of the femur (fixation for transportation, application of Thomas and Hodgen splints, complications and after-treatment), Pott's fracture, and fracture of the bones of the arm and forearm. (Dr. Rainey.)

Attendance limited to eight students. Fee, if not taken as part of the combined surgical course, \$25.00.

10. SURGICAL DISEASES OF CHILDREN. Children's and Barnes Hospitals. Fridays, 9 a. m. to 12 m. Six weeks. Dr. Clopton

This course will make full use of the large surgical material in the Children's Hospital, supplemented by pathological material, X-ray studies, and the clinical records of former patients. Emphasis will be laid almost exclusively on the particular characteristics of the surgical lesions and diseases affecting childhood, such as: tumors and retention cysts, osteomyelitis and arthritis, fractures and epiphyseal separations, the various types of lymph node disease, empyæma, appendicitis, peritonitis (septic and tuberculous), congenital pyloric stenosis, and the various congenital malformations. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

11. GENERAL ROENTGENOLOGY. Barnes Hospital. Tuesdays, 2 to 4:30 p. m. Dr. Moore

This course will consist of demonstrating the methods of roentgenological examinations, the application of roentgenology to diagnosis, radiographic and fluoroscopic interpretation, and the study of selected plates illustrating normal and pathological states. For those interested, a series of conferences will be held on the subject of the use of radium. Attendance limited to eight. Fee, if not taken as part of combined surgical course, \$25.00.

12. NEURO-SURGERY. Barnes Hospital. Mondays, 12 m. to 1 p. m. Six weeks. Dr. Sachs



In this course the student will be shown surgical lesions of the central nervous system (brain and spinal cord) and peripheral nerves. The cases will be discussed from the points of view of diagnosis, prognosis, and treatment. Neuro-surgical operations will be witnessed in the operating room of the Barnes Hospital, and such less major procedures as lumbar puncture and ventricular puncture will also be demonstrated. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

**13. GENITO-URINARY SURGERY.** Barnes Hospital and Washington University Dispensary. Wednesdays, 12 m. to 1 p. m. Six weeks. Dr. Caulk and staff

In this course an attempt will be made to sketch, along broad lines, the fundamental principles of genito-urinary surgery and the relation of this specialty to general surgery. For this purpose the material of both the hospital and dispensary will be used. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

**14. CYSTOSCOPY.** Barnes Hospital and Washington University Dispensary. Saturdays, 9 to 10 a. m. Six weeks. Dr. Caulk

The students will witness cystoscopy and ureteral catheterization and be shown the appearance through the cystoscope of normal and pathological bladders. Attendance limited to eight. Fee, if not taken as part of the combined course, \$25.00.

**15. ORAL AND MAXILLO-FACIAL SURGERY.** Barnes Hospital. Fridays, 12 m. to 1 p. m. Six weeks. Dr. Blair

This course will deal with the surgical lesions of the mouth and essentially related structures. The following topics will be considered: carcinoma of the mouth, tongue and face, apical, gingival and pericemental infections, granulomata and dental cysts, bone necrosis, central infections of dental origin, cervical adenitis and cellulitis, surgical diseases of the salivary glands and ducts, congenital defects of the lips, palate, and neck, injuries and acquired deformities of the jaws, face, and neck, and benign tumors of the jaws, cheeks, lips, tongue, palate, and mouth. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.



16. ORTHOPEDIC SURGERY. Barnes Hospital. Saturdays, 12 m. to 1 p. m. Six weeks. Professor Allison

In this course the broad general and fundamental principles underlying surgery of the skeletal system will be sketched in and illustrated with patients, in order to emphasize the relationships between this type of surgery and general surgery. Attendance limited to eight. Fee, if not taken as part of the combined surgical course, \$25.00.

17. SURGICAL ANATOMY. Anatomical Laboratory.

Professor Tupper

This course is not a part of the combined surgical course. It runs from March 14, 1921, to May 28, 1921, two hours twice weekly. The conventional surgical regions are considered and the skeleton, muscles, blood vessels, nerves, and lymphatics are discussed from the surgeon's point of view. Lectures and demonstrations. Attendance limited to four. Fee for course, \$50.00.

COMBINED SURGICAL COURSE

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Surgical Operations (Course No. 1)	Surgical Diagnosis (Course No. 4)	Acute and Traumatic Surgery (Course No. 9)		Surgical Diseases of Children (Course No. 10)	Cystoscopy (Course No. 14)
10 to 11				Minor Surgery (Course No. 5)		Minor Surgery (Course No. 5)
11 to 12						
12 to 1	Neuro-Surgery (Course No. 12)	Surgical Clinic (Course No. 2)	Genito-Urinary Surgery (Course No. 13)		Oral and Maxillo-Facial (Course No. 15)	Orthopedic Surgery (Course No. 16)
2 to 4	Surgical Pathology (Course No. 6)	General Roentgenology (Course No. 11)	Post-Operative Treatment (Course No. 3)	Surgical Pathology (Course No. 6)	Operative Surgery (Course No. 8)	
4 to 6				Clinical- Pathological Conference (Course No. 7)		

### Orthopedic Surgery

To those students primarily interested in surgery of the skeletal system, muscles, tendons, and joints, the department of Orthopedic Surgery offers a set of six courses during the morning hours, for a period of six weeks (April 4 to May 15, 1921). The fee for these six courses is \$50.00. The fee for any one of the six courses taken alone is \$15.00. The full course is limited to eight students.

1. ORTHOPEDIC SURGERY IN ADULTS. Barnes Hospital. Thursdays and Saturdays, 9 to 10 a. m. Dr. Stewart

This course will consist of bedside instruction, by ward rounds, in the methods of examination and differential diagnosis of orthopedic cases in adults. It will include instruction in pre-operative and post-operative measures in cases which require operative treatment.

2. OPERATIVE CLINIC. Barnes Hospital. Tuesdays, 9 to 10 a. m. Professor Allison and staff

This course will consist in a demonstration of the various operative procedures incident to the correction of congenital deformities, the mobilization of joints by manipulation and arthroplasty, and the stabilizing of joints by arthrodesis. In this course the patients demonstrated and operated upon will be almost exclusively adults.

3. DIAGNOSTIC AMBULATORY CLINIC. Washington University Dispensary. Daily, 10 a. m. to 12 m.

Dr. O'Reilly, Dr. Stone, Dr. Stewart, Dr. Ewerhardt, and Dr. Brooks

This course will consist in the diagnosis and treatment of all ambulatory cases, including tuberculosis of bones and joints, osteoarthritis, back strain, flat foot and foot strain. Instruction will be given in the use and application of plaster of Paris in ambulatory cases, measurement and application of braces and orthopedic appliances. One period a week will be devoted to the use of hydro- and mechano-therapeutics, massage and exercises in the treatment of diseases and injuries of the bones and joints, flat foot, and postural defects.

4. ORTHOPEDIC SURGERY IN CHILDREN. Children's Hospital. Mondays and Wednesdays, 9 to 10 a. m. Dr. Stone

This course will consist of ward rounds, devoted to bedside instruction in the diagnosis and treatment of Pott's disease, tuberculosis of the hip and tuberculosis of other joints, acute and chronic poliomyelitis, congenital club foot, congenital dislocation of the hip and other malformations.

5. OPERATIVE CLINIC. Children's Hospital and Barnes Hospital. Fridays, 9 to 10 a. m. Professor Allison and staff

This course, devoted almost exclusively to orthopedic diseases of children, will be devoted to operations for the correction of congenital and acquired deformities; stabilizing operations, such as muscle and tendon transference and fusion of joints; operations for the correction of rachitic deformities.

6. AMBULATORY CLINIC FOR CHILDREN. Washington University Dispensary. Daily, 10 a. m. to 12 m.

Dr. O'Reilly, Dr. Stone, Dr. Ewerhardt, Dr. Stewart,  
and Dr. Brooks

This course embraces the diagnosis and treatment of all ambulatory cases, including tuberculosis of bones and joints, non-tuberculous arthritis, and poliomyelitis. Instruction will be given in the use and application of plaster of Paris bandages in the correction of scoliosis. One period a week will be devoted to instruction in the application of hydro- and mechano-therapeutics, massage and muscle training in the treatment of poliomyelitis and other nerve conditions and corrective exercises in the treatment of postural defects. One morning during this course will be devoted to a trip to the Convalescent Home at Valley Park for a demonstration by Dr. O'Reilly of the open-air and heliotherapy methods in the treatment of bone and joint tuberculosis.

### Genito-Urinary Surgery

The various courses outlined below have been planned so as to constitute a combined course of six weeks' duration from April 4th to May 15th. If all of the six courses are taken as a combined course, the fee is \$100.00. The fee for the individual courses, if taken alone, is specified in each instance.

1. GENERAL COURSE. Washington University Dispensary. Mondays and Fridays, 10 to 11 a. m.; Tuesdays and Thursdays, 11 a. m. to 12 m.

Dr. Greditzer, Dr. Wilhelmi, Dr. Amos, and Dr. McBratney

This general course is intended to give the practitioner an opportunity to handle routine cases of genito-urinary diseases. Under the guidance of the instructors, the students will be given an opportunity to diagnose and treat the acute and chronic infections that are common in this specialty. Particular attention will be given to the treatment of venereal diseases and to the diagnosis and treatment of the chronic infections of the prostate, seminal vesicles and deep urethra. Minor operations, such as drainage of bubos, circumcisions, dorsal incisions, meatotomies, and the treatment of chancroids and venereal warts, will be included. This course is designed to equip the student to diagnose and carry out the treatment of ordinary types of genito-urinary diseases. Instruction will be given also on the Wassermann reaction, gonorrheal fixation test, and the various blood examinations which have a bearing on kidney function. Fee, if not taken as part of combined course, \$25.00.

2. CYSTOSCOPIC AND ENDOSCOPIC COURSE. Washington University Dispensary, Tuesdays and Thursdays, 10 to 11 a. m.; Saturdays, 11 a. m. to 12 m. Barnes Hospital, Thursdays and Fridays, 9 to 10 a. m.

Dr. Caulk, Dr. Greditzer, and assistants

An opportunity will be given to the student to learn the use of the cystoscope and endoscope in the diagnosis and treatment of bladder, kidney, and urethral diseases. They will be familiarized with urethral catheterization, functional kidney tests, pyelography and treatment of bladder tumors by the high-frequency current and with the endoscopic treatment to the deep urethra. Fee, if not taken as part of the combined course, \$25.00.

3. OPERATIVE COURSE. Amphitheatre, Barnes Hospital. Wednesdays from 9 a. m. to 12 m. and other days as the material presents.

Dr. Caulk

Here the student will be given an opportunity to watch major operations upon the kidneys, ureters, bladder, and genitals, and

will be thoroughly drilled in operating-room technique. This course is supplemented by the ward rounds. Tuesdays from 9 to 10 a. m. Wards of the Barnes Hospital and St. Louis Children's Hospital. In the latter, kidney infections in children and congenital malformations, such as hypospadias and the like, may be studied. This course is further supplemented by an operative course on animals and study of prosected cadavers and anatomical specimens. This part of the course is given by Dr. Rose. Saturdays, 9 to 11 a. m. Opportunity will also be furnished for the student to freshen up on Surgical Pathology. This will be conducted by Dr. Rose, in conjunction with his operative course. Fee, if not taken as part of the combined course, \$25.00.

4. CYSTOSCOPIC COURSE ON WOMEN. Washington University Dispensary. Mondays and Fridays, 11 a. m. to 12 m.

Dr. Tharp

This course may be taken in conjunction with Course 2, if so desired. It will give the student an opportunity to use the cystoscope, ureter, catheter, functional test, X-ray, and urethroscope in studying the diseases found in the female urinary tract. Fee, if not taken as part of the combined course, \$25.00.

5. DIDACTIC LECTURE COURSE AND LITERATURE STUDY. Washington University. Mondays, 9 to 10 a. m.

Dr. Caulk and Dr. Greditzer

This course will consist of didactic lectures on genito-urinary topics with suggestions to the student regarding a study of the literature on topics of interest in order that he may be made familiar with the progress of urology. Fee, if not taken as part of the combined course, \$25.00.

6. GENERAL COURSE. St. Louis City Hospital No. 2. Tuesdays and Thursdays, 3 to 5 p. m.

Dr. Robertson and Dr. Young

This course will be given in the operating room and wards of City Hospital No. 2 and will afford the student the opportunity to see the routine cases, to observe and handle the cystoscope in the diagnosis and treatment of genito-urinary diseases, to follow the surgery of these cases and to see the patients on the



wards and to carefully watch their after-treatment. In this course there will be an opportunity to see more of the urgent urological cases, such as extravasation of urine, traumatic injuries, etc. Fee, if not taken as part of the combined course, \$25.00.

Through the year the routine clinic is being conducted from 10 a. m. to 12 m. daily. Any student interested in special subjects may receive intensive training in such subjects by special arrangement.

## COURSES IN GENITO-URINARY DISEASES

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Genito-Urinary Lecture Dispensary	Ward Rounds Barnes Hospital	Surgical Amphitheatre Barnes Hospital	Cystoscopic Barnes Hospital	Cystoscopic Barnes Hospital	Operative Course in Animals and Surgical Pathology
10 to 11	Clinical Course Dispensary	Cystoscopic Dispensary		Cystoscopic Dispensary	Clinical Course Dispensary	
11 to 12	Cystoscopic in Women Dispensary	Clinical Dispensary		Clinical Dispensary	Cystoscopic in Women Dispensary	Cystoscopic Dispensary
12 to 1						
3 to 5		City Hospital General Course		City Hospital General Course		

### **Ophthalmology, Otology, Laryngology**

The following courses are offered:

1. A two-year course in Ophthalmology.
2. Four-month courses in Ophthalmology, Otology, and Laryngology.
3. Individual courses in special subjects in Ophthalmology and Otology.

(1) The two-year course in Ophthalmology is designed to give adequate training and instruction in diseases of the eye to fit the student for special practice in that specialty. (See Ophthalmology.)

(2) The four-month courses in Ophthalmology, Otology, and Laryngology are designed for those who have already had some experience in eye, ear, nose, and throat work and some knowledge of the fundamentals of these subjects and some experience in the usual methods of examination will be required of applicants for enrollment.

The courses are so arranged that they may be taken conjointly or singly as desired.

The number of students in each course will be limited to eight.

### **Ophthalmology**

A post-graduate course will be given in Ophthalmology extending over a period of two years. Opportunity is provided to study and investigate for one's self under the guidance of a skilled instructor. It differs from the undergraduate course in that the student is given the opportunity for self-improvement without being overburdened with lectures. It is suggestive, not didactic, and contemplates equipping the student for special ophthalmic practice.

After spending the number of weeks indicated in acquiring the essentials for intelligent ophthalmic practice, it is recommended that the student employ the remainder of the two years in some original investigation work on the eye, either selected by himself or with the aid of his instructors.

In addition to this course of instruction the students will have

the opportunity to attend all important surgery on the eye, nose, throat, and head in the clinics of the Washington University Dispensary, Barnes, Children's and the City Hospitals. The operations are posted daily on the clinical bulletin board. The students will also have the privilege of attending the Thursday afternoon conference in pathology, which is conducted by Dr. Opie for the staffs and interns of the hospitals.

The object of this course in Ophthalmology is knowledge and self-reliance. The knowledge is largely acquired in the laboratory and in the library; the self-reliance, in the practical work of the clinics and the hospitals.

The course is conducted by the Ophthalmic staff of Washington University and consists of lectures, quizzes, laboratory work, library work, and clinics.

*Lectures.* These will consist of from one-half to one hour explanations and instruction on the work for the week, one in Anatomy or Pathology in the morning and one in Refraction in the afternoon, Mondays.

*Quizzes.* At the end of each week, quizzes of from one-half hour to an hour will be held on the subjects of the week.

*Laboratory.* The work in the laboratory will consist of collecting, fixing, cutting, staining, mounting, and delineating specimens, all necessary bacteriology, experiments on animals, operations on animals' eyes, and on the cadaver when opportunity may present itself. It will also include work with optical apparatus.

*Library.* The Ophthalmic Library consists of ophthalmic literature collected by Dr. John Green, Sr., and by Dr. Adolf Alt during their lives, and includes nearly every text-book, periodical, and encyclopedia that is of value to the ophthalmologist. In addition to this, the library subscribes to all leading ophthalmic journals and society reports. It will be expected of the students that all possible spare time be given to the investigation of the subjects of the week.

*Clinics.* The clinical work will consist of twelve hours each week, of which six hours will be devoted to pathology and six hours to refraction. Excepting holidays, this will be continued

throughout the course. This time will be devoted entirely to practical work with patients.

This is the course recommended to those who wish to become practitioners of ophthalmology. The fee for this course will be the same as that paid by the under-graduates. At present not more than four students can be accommodated.

In addition to the course in Ophthalmology, special short courses will be given in (1) Ophthalmoscopy, (2) Refraction, Skiascopy and Perimetry, (3) Diagnosis and Treatment, (4) Ophthalmic Surgery, (5) Laboratory, Histology, and Pathology. Each course will consist of from 12 to 20 lectures, morning library or laboratory work and afternoon clinical work, and will cover a period of six weeks. The fee for each course will be \$100.00.

As there is a demand for a combined course in Ophthalmology, Otology, and Laryngology for general practitioners, the University offers a four-month combined course which will include 64 lectures and 128 hours' clinical work in refraction and diseases of the eye. The clinics are in the afternoons and the lectures will be given mainly in the afternoons. The students will be expected to spend their morning hours in the library investigating the subjects given in the course. The course will occupy four months and the fee will be \$500.00 for the combined work in the three specialties.

### Otology

The course will consist of:

1. ANATOMY AND PHYSIOLOGY. Dispensary. Lectures, one hour twice a week for three weeks. 4 to 5 p. m.

Professor Shapleigh

2. DISSECTION. Anatomical Laboratory. Two hours once a week for three weeks. 9 to 11 a. m.

Dr. Kelley

3. PATHOLOGY. Pathological Laboratory. Two hours once a week for six weeks. 9 to 11 a. m.

Dr. Proetz

4. DISEASES OF THE EAR. Dispensary. Lectures and demonstrations. One hour twice a week for thirteen weeks. 4 to 5 p. m.

Professor Shapleigh, Dr. Lyman, and Dr. Kelley

5. OPERATIVE COURSE ON THE CADAVER. Anatomical Laboratory. Two hours once a week for ten weeks. 8:30 to 10:30 a. m.

Dr. Lyman and Dr. Kelley

6. CLINICAL COURSE. Dispensary. Practical work in the clinic. Two hours twice a week for sixteen weeks. 2 to 4 p. m.

Professor Shapleigh, Dr. Lyman, Dr. Kelley, and assistants

Individual courses, such, for example, as labyrinth testing (Barany tests), will be arranged on special application.

### Rhinology and Laryngology

A course of four months in Rhinology and Laryngology is offered to practitioners who are familiar with the methods of examination and the ordinary treatment used in this specialty.

Those who must be taught the use of mirrors and lights will not be accepted.

This course is coöperative with similar courses in Ophthalmology and Otology. Together they require the full day of the student, six days a week.

#### SCHEDULE

Anatomy of the Nose. 24 hours. Dr. Nesbit

Histology-Pathology of the Nose and Throat. 12 hours.

Dr. Bell

Demonstration of the Nasal Suppurations on the Cadaver. 12 hours. Dr. Arbuckle

Nasal Diagnosis. 48 hours. Professor Sluder and Dr. Bryan

Nasal Surgery. 48 hours. Professor Sluder and staff

Bronchoscopy and Oesophaguscopy. 48 hours.

Dr. Arbuckle

Tonsillectomy. 48 hours.

Professor Sluder, Dr. Van Meter, and staff

A Lecture Course. 12 hours.

Professor Sluder

The number of students is limited to eight. The fee for the three courses — Ophthalmology, Otology, and Rhinology — is \$500.00.



### Obstetrics and Gynecology

Beginning April 4, 1921, the department offers a number of courses to the general practitioner. Each course is completed in six weeks; each course will be repeated every six weeks throughout the school year, that is, between October 1st and June 30th of each year.

The two series of courses offered for the session of 1920-1921 begin April 4, 1921, and May 17, 1921.

The six series of courses offered for the session of 1921-1922 begin October 1, 1921; November 14, 1921; January 2, 1922; February 15, 1922; April 3, 1922, and May 16, 1922.

#### 1. COMBINATION COURSE IN OBSTETRICS AND GYNECOLOGY.

A. *Obstetrics*. The diagnosis of pregnancy; the care of the expectant mother; routine laboratory examinations, pelvimetry, etc., are taught in the prenatal clinic of the Washington University Dispensary three afternoons each week from 2 to 4 o'clock.

The management of labor, obstetrical asepsis, the use of anesthetics, including nitrous oxide-oxygen and twilight-sleep, are taught in the delivery rooms of Barnes Hospital.

The management of the puerperium and of the new-born baby is studied in the obstetrical wards and nurseries of Barnes Hospital three mornings each week from 9 a. m. to 12 m. Special lectures on obstetrical subjects, such as the toxemias of pregnancy, eclampsia, placenta prævia, contracted pelvis, etc., also exercises on the obstetrical manikin, are given three times each week from 12 m. to 1 p. m.

B. *Gynecology*. Gynecological diagnosis and office treatment is taught on three afternoons each week from 2 to 4 o'clock in the Gynecological Clinic of the Washington University Dispensary.

The hospital care of gynecological cases is studied on the wards and in the operating rooms of Barnes Hospital on three mornings each week from 9 a. m. to 12 m. On Wednesday morning there is a diagnostic clinic; on Thursday morning there is an operative clinic and on Saturday morning the post-operative care and the non-operative treatment of gynecological cases are studied.

This clinical instruction is supplemented by three lectures on gynecological topics on three days each week from 12 m. to 1 p. m.

This combination course occupies the practitioner's entire time from 9 a. m. to 4 p. m., exclusive of the time spent in the delivery rooms or in attendance on labor cases on the Out-patient Service.

Each course is limited to four students. Fee \$100.00.

#### 2. OBSTETRICS A ONLY.

Obstetrics A of Course 1 can be taken by itself. This arrangement leaves three mornings and three afternoons free for courses in other departments. Fee \$50.00.

#### 3. GYNECOLOGY B ONLY.

Gynecology B of Course 1 can be taken by itself, leaving three mornings and three afternoons free for courses in other departments. Fee \$50.00.

#### 4. OBSTETRICS ONLY.

Those who wish to work six weeks in obstetrics exclusively should select Course 4. They will work six afternoons each week in the prenatal clinics and will receive double the number of special lectures and demonstrations in obstetrics offered in Course 1. This course is especially recommended to those who wish to make a thorough study of twilight-sleep and prenatal care. Fee \$100.00.

#### 5. GYNECOLOGY ONLY.

Those who wish to work six weeks in gynecology exclusively should select Course 5. They will work six afternoons each week in the gynecological clinics of the Washington University Dispensary. They will have three diagnostic clinics and three operative clinics each week (one each by Dr. Crossen, Dr. Gellhorn, and Dr. Taussig), and will receive double the number of special lectures on gynecological subjects. Fee \$100.00.

#### SPECIAL COURSES

#### 6. OBSTETRICAL AND GYNECOLOGICAL HISTOLOGY AND PATHOLOGY.

The course consists in the macroscopical and microscopical study of the female pelvic organs in health and disease. Special

attention is given to the care of material obtained from the operating rooms for diagnostic purposes. The student is taught the handling of this material from the moment of removal from the patient to the finished slide. Four hours each week. Fee \$50.00.  
Dr. Otto H. Schwarz

7. X-RAY AND RADIUM THERAPY IN GYNECOLOGY. Four hours each week. Limited to two students. Fee \$50.00.

Dr. Taussig

8. CYSTOSCOPY AND ENDOSCOPY IN THE FEMALE. Four hours each week. Limited to two students. Fee \$50.00.

Dr. Taussig

9. DIAGNOSIS AND TREATMENT OF UTERINE CANCER. Four hours each week. Limited to two students. Fee \$50.00.

Dr. Gellhorn

10. OPERATIVE GYNECOLOGY ON THE CADAVER. Course not available before January 2, 1922. Limited to four students. Fee \$100.00.

Dr. Crossen

NOTE regarding Courses 1 to 9: Students selecting two or more of these courses during the same period of six weeks will pay a fee of \$100.00, irrespective of the aggregate fee the courses so selected may call for.

#### COURSE FOR GRADUATE STUDY

Graduates from Class A Medical Schools, who have served a year of internship in a recognized hospital and who are otherwise qualified, are offered a full school session's work in Obstetrics and Gynecology, arranged as follows: The first trimester is spent in the department's laboratory for Gynecological and Obstetrical Pathology; the remaining trimesters are spent in the dispensary and hospital service.

The students are apprenticed to the various chiefs, who supervise their work and direct their reading. In the last trimester they perform minor operations and assist in major ones.

Students who intend to remain in the department longer than one school session will receive every opportunity and assistance to do research work.

Limited to two students. Fee \$200.00.

SCHEDULE OF COURSE 1. OBSTETRICS AND GYNECOLOGY

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	Obstetrical Ward Rounds Barnes Hospital		Gynecology Diagnostic-operative Clinic Barnes Hospital		Obstetrical Gynecological Ward Rounds Barnes Hospital	
12 to 1	Obstetrics Lecture		Gynecology Lecture		Obstetrics Lecture	Gynecology Lecture
2 to 4	Prenatal Dispensary		Gynecological Dispensary		Prenatal Dispensary	Gynecological Dispensary

## SCHEDULE OF COURSE 2. OBSTETRICS A ONLY

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	Obstetrics Lecture Ward Rounds Barnes Hospital				Obstetrical Ward Rounds Barnes Hospital	
12 to 1	Obstetrics Lecture				Obstetrics Lecture	
2 to 4	Prenatal Dispensary				Prenatal Dispensary	

SCHEDULE OF COURSE 3. GYNECOLOGY B ONLY

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12			Gynecology Diagnostic-Operative Clinic Barnes Hospital			Gynecological Ward Rounds Barnes Hospital
12 to 1			Gynecology Lecture			Gynecology Lecture
2 to 4			Gynecological Dispensary			Gynecological Dispensary



## SCHEDULE OF COURSE 4. OBSTETRICS EXCLUSIVELY

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	Obstetrical Ward Rounds Barnes Hospital					
12 to 1	Obstetrics Lecture					
2 to 4	Prenatal Dispensary					

SCHEDULE OF COURSE 5. GYNECOLOGY EXCLUSIVELY

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	Diagnostic-Operative Clinic City Hospital No. 2 Dr. George Gellhorn		Diagnostic-Operative Clinic Barnes Hospital Dr. H. S. Crossen		Diagnostic-Operative Clinic City Hospital No. 2 Dr. Fred A. Taussig	
12 to 1	Gynecology Lecture					
2 to 4	Gynecological Dispensary					

NOTE: Schedules are not given for special courses 6 to 10. Instructors will arrange these courses so as not to interfere with the main schedule of students.

### Pediatrics

The Department of Pediatrics of the Washington University School of Medicine offers a four weeks' course in Pediatrics to general practitioners. The course is given twice yearly, in September and in April. Instruction is given daily, morning and afternoon, throughout the four weeks' period.

The major portion of the instruction is given in the wards of the St. Louis Children's Hospital, an institution affiliated with the Washington University School of Medicine. This hospital has 160 beds and provides for infants and older children with medical, surgical, and contagious diseases. Practical instruction is also given in the children's division of the Out-patient Department of the Washington University Dispensary. Approximately 1,000 visits are made to the children's clinic each month. Additional instruction is given in the pediatric wards of the City Hospital No. 2 and in the Municipal Welfare clinics.

Physicians taking the pediatric course are permitted to attend the regular teaching amphitheatre clinics in Medicine, Surgery, and Obstetrics. These clinics are given in the Barnes Hospital.

The schedule is so arranged that the physician has practically his entire time occupied in intensive work during the month.

The course includes the following divisions:

1. **INFANT FEEDING.** Lectures, demonstrations, and ward rounds in the St. Louis Children's Hospital and practical work in the Out-patient Feeding Clinic. The fundamental principles of infant nutrition are discussed in relation to the feeding of normal and sick infants. Instruction in the preparation of milk mixtures, treatment of gastro-intestinal and nutritional disorders peculiar to infancy.

2. **COMMON DISEASES OF CHILDREN.** Lectures, demonstrations and ward rounds in the St. Louis Children's Hospital and the City Hospital No. 2. Especial emphasis is laid on diagnosis and treatment. Consideration of the clinical value and interpretation of X-ray plates, electrocardiographic tracings, etc., physical diagnosis, instruction in such procedures as lumbar puncture and intravenous and intraperitoneal methods of administration.

3. **CONTAGIOUS DISEASES.** Ward rounds in the contagious pavilion of the St. Louis Children's Hospital. Consideration of the diagnosis and control of contagious diseases, instruction in such procedures as intubation and examination of throat cultures.

4. **CHILD HYGIENE.** Preventive medicine and hygiene as applied to infants and children. Practical work in the Welfare Clinics.

5. **LABORATORY TECHNIQUE.** Instruction in the more important laboratory methods of diagnosis, especially as applied to diseases of children. Examination of blood, urine, and spinal fluids. The newer methods of laboratory diagnosis are especially considered.

6. **SPECIALTIES.** A series of lectures and demonstrations in the wards and Out-patient Department by members of the teaching staff other than those of the department of Pediatrics. Specialties are considered in their clinical application to children and include orthopedic surgery, dermatology, oral surgery, laryngology, and psychiatry.

7. **ROUND TABLE DISCUSSIONS.** These are informal discussions conducted by members of the staff. Each graduate student is urged to bring up his especial problem and the topics he wishes discussed.

#### ADVANCED WORK

A limited number of physicians who desire to specialize further in Pediatrics are, on completion of the regular graduate course, permitted to continue work in the wards of the hospital and in the clinic. They are privileged to attend any of the teaching exercises of the department. Those doing such advanced work are encouraged to make a special study of certain types of cases and to do work under supervision which is calculated to advance our knowledge of diseases in children.

**FEES.** The fee for the month's course, including all of the divisions indicated, is \$75.00. The number of graduate students

admitted to this course is limited to sixteen. Application for admission should be made to the Registrar, Washington University School of Medicine, St. Louis. A registration fee of \$10.00 must accompany the application.

A general arrangement of the courses and time devoted to each is indicated in the following schedule.

SCHEDULE OF COURSE IN PEDIATRICS

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Diseases of Heart Dr. McCulloch	Orthopedic Surgery Dr. O'Reilly	Laboratory Dr. Cooke	Infant Feeding Dr. Marriott	Pediatrics Dr. Veeder	Contagious Diseases Dr. Jeans
10 to 10:30	Infant Feeding Dr. Marriott					
10:30 to 11		Round Table Discussion		Ward Walk Dr. Marriott	Physical Diagnosis	Ward Walk Dr. Jeans
11 to 12						
12 to 1	Neurological Clinic Dr. Schwab	Surgical Clinic Dr. Graham	Pediatric Clinic Dr. Tuttle	Medical Clinic	Obstetrical Lecture Dr. Schwarz	Medical Clinic Dr. Dock
2 to 3	Round Table Discussion	Infant Feeding Clinic Dr. Veeder	Laboratory Dr. Clausen	Infant Feeding Clinic Dr. Veeder  Pediatric Dispensary Dr. Jeans	Special Clinics Announced Weekly	
3 to 3:30						
3:30 to 4	Pediatric Clinic Dr. Hempelmann					
4 to 4:30						
4:30 to 5				Clinical-Pathological Conference	Pediatric Seminar	



### **Anatomy**

In the departments of Surgery, Gynecology, Ophthalmology, Otology, and Laryngology and Rhinology, the department of Anatomy coöperates in the anatomical teaching. The various courses in regional anatomy outlined under the heads of the different departments are all given under the direction of the department of Anatomy.

### **Current Medical Literature**

(Bibliography)

Library of the Washington University Medical School.

Professor Loeb

The purpose of this course is to study current medical literature, at convenient hours, either late in the afternoon or in the evening. The aim of the course is two-fold: (1) to survey the principal publications in the various fields of theoretical and practical medicine and to discuss ways and means of tracing the literature in a certain field; (2) to become acquainted with some of the principal problems, especially in theoretical medicine, under investigation at the present time. Fee \$25.00.

# GENERAL SCHEDULES

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of First Year. First Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	<div>Histology</div> <div>Laboratory</div> <div>Anatomy 3</div>					
10 to 11						
11 to 12						
12 to 1	Military Science and Tactics 1					
2 to 3						
3 to 4		Dissection Anatomy 6		Dissection Anatomy 6		
4 to 5						

*Quantitative Analysis: Chemistry 1*—Monday 3-5 p. m.; Wednesday 2-5 p. m. This course is required of those who do not present credit for Quantitative Analysis on admission.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE.

1921-22

Schedule of First Year. Second Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Biological Chemistry Laboratory Chemistry 3	Neurology Laboratory Anatomy 5			Biological Chemistry Laboratory Chemistry 3	
10 to 11						
11 to 12						
12 to 1						
			Biological Chemistry Lecture Chemistry 3			
2 to 3	Military Science and Tactics 1	Dissection  Anatomy 6		Dissection  Anatomy 6		
3 to 4						
4 to 5						

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
Schedule of First Year. Third Trimester

1921-22

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
9 to 10	Biological Chemistry Laboratory Chemistry 3	Bacteriology Laboratory Pathology 1	Biological Chemistry Laboratory Chemistry 3	Bacteriology Laboratory Pathology 1	Biological Chemistry Laboratory Chemistry 3	Bacteriology Laboratory Pathology 1	
10 to 11							
11 to 12							
12 to 1	Physiology Lecture Physiology 2	Physiology Lecture Physiology 2	Bacteriology Lecture Pathology 1	Biological Chemistry Lecture Chemistry 3	Physiology Lecture Physiology 2	Physiology Lecture Physiology 2	
2 to 3	Bacteriology Lecture Pathology 1	Dissection Anatomy 6		Dissection Anatomy 6			
3 to 4							
4 to 5	Military Science and Tactics 1						

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
Schedule of Second Year. First Trimester

1921-22

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pathology  Laboratory  Pathology 2	Infection and Immunity  Lecture and Laboratory  Pathology 3	Pathology  Laboratory  Pathology 2	Physiology Lecture Physiology 2	Pathology  Laboratory  Pathology 2	Pathology Recitation Pathology 2
10 to 11						Gross Pathology Pathology 2
11 to 12						Lecture on Infection and Immunity Pathology 3
12 to 1		Physiology Lecture Physiology 2		Physiology Lecture Physiology 2		
2 to 3	Physiology Lecture Physiology 3	Physiology  Laboratory  Physiology 3		Physiology  Laboratory  Physiology 3		
3 to 4						
4 to 5	Military Science and Tactics 1					

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Second Year. Second Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pathology  Laboratory  Pathology 2	Introductory Clinic Medicine 2  Pharmacology Lecture Pharmacology 1	Pathology  Laboratory  Pathology 2	Pathology Lecture Pathology 2	Pathology  Laboratory  Pathology 2	Pathology Lecture Pathology 2
10 to 11				Surgery Clinic Surgery 1		Gross  Pathology Pathology 2
11 to 12				Introductory Clinic Medicine 2		
12 to 1				Pharmacology Lecture Pharmacology 1		Physiology Lecture Physiology 2
2 to 3	Physical Diagnosis Medicine 1	Surgical Technique Surgery 1		Surgical Technique Surgery 1	Physical Diagnosis Medicine 1	
3 to 4						
4 to 5	Military Science and Tactics 1	Medicine Recitation Medicine 2			Medicine Recitation Medicine 2	



WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Second Year. Third Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pediatrics Clinical Conference Pediatrics 2	Pediatrics Clinical Conference Pediatrics 2	Pharmacology Lecture Pharmacology 1	Obstetrics Recitation Obstetrics 1	Applied Anatomy Anatomy 9	Applied Anatomy Anatomy 9
10 to 11	Group A Medicine 6	Group A Physical Diagnosis	Group A Medicine 6	Group A Medicine 6	Group A Medicine 6	Gross Pathology
	Group B Surgery 2	Group B Surgery 2	Group B Surgery 2	Group B Physical Diagnosis	Group B Surgery 2	
11 to 12	Group C Obstetrics 1	Group C $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group C Physical Diagnosis	Group C $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group C Obstetrics 1	Pathology 2
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Medicine Recitation Medicine 6	Pharmacology Lecture Pharmacology 1
2 to 3	Pharmacology Lecture Pharmacology 1	Pharmacology  Laboratory  Pharmacology 1		Pharmacology  Laboratory  Pharmacology 1	Surgical Pathology	
3 to 4					Surgery 3	
4 to 5	Military Science and Tactics 1					

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Third Year. First Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pediatrics Clinical Conference Pediatrics 2	Neurology Neurology 1	Gynecology Obstetrics 2	Obstetrics Recitation Obstetrics 1	Obstetrics Recitation Obstetrics 1	Pediatrics Clinical Conference Pediatrics 2
10 to 11	Group A Obstetrics 1	Group A $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group A Physical Diagnosis	Group A $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group A Obstetrics 1	Neuro-Pathology Neurology 1
	Group B Medicine 6	Group B Physical Diagnosis	Group B Medicine 6	Group B Medicine 6	Group B Medicine 6	
11 to 12	Group C Surgery 2	Group C Surgery 2	Group C Surgery 2	Group C Physical Diagnosis	Group C Surgery 2	
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Medicine Recitation Medicine 6	Preventive Medicine
2 to 3	Preventive Medicine	Military Science and Tactics 2	Clinical Microscopy Medicine 5	Clinical Microscopy Medicine 5	Clinical Microscopy Medicine 5	
3 to 4	Social Medicine		Surgical Pathology			
4 to 5	Clinical Patho- logical Conference Pathology 5		Surgery 3			

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
Schedule of Third Year. Second Trimester

1921-22

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pediatrics Clinical Conference Pediatrics 2	Neurology Neurology 1	Gynecology Obstetrics 2	Obstetrics Recitation Obstetrics 1	Obstetrics Recitation Obstetrics 1	Pediatrics Clinical Conference Pediatrics 2
10 to 11	Group A Surgery 2	Group A Surgery 2	Group A Surgery 2	Group A Physical Diagnosis	Group A Surgery 2	Genito-Urinary Surgery Lecture Surgery 2
	Group B Obstetrics 1	Group B $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group B Physical Diagnosis	Group B $\frac{1}{2}$ Neurology 1 $\frac{1}{2}$ Pediatrics 1	Group B Obstetrics 1	
11 to 12	Group C Medicine 6	Group C Physical Diagnosis	Group C Medicine 6	Group C Medicine 6	Group C Medicine 6	Therapeutics Medicine 7
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Dietetics Medicine 8	Preventive Medicine
2 to 3	Dermatology Lecture	Military Science and Tactics 2	Ophthalmology Lecture			
8 to 4	Therapeutics Medicine 7	Laryngology Lecture	Surgical Pathology Surgery 8	Group 1 Operative Surgery Surgery 2	Group 2 Operative Surgery Surgery 2	
4 to 5	Clinical Patho- logical Conference Pathology 5					

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Third Trimester of Third Year and First and Second Trimesters of Fourth Year. Group A., Third Trimester; Group B., First Trimester; Group C., Second Trimester.\*

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	<p>Medicine 10. Ward Work, Barnes Hospital.</p> <p>Neurology 3. Neurological Ward and Out Patient Work.</p>					
12 to 1	Neurology Clinic Neurology 3	Surgery Clinic Surgery 4	Pediatric Clinic Pediatrics 4	Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 3 I and II Trimesters	Medicine Clinic Medicine 10
2 to 3	Dermatology O. P. D.	Dermatology O. P. D.	Ophthalmological Pathology I Trimester		Dermatology O. P. D.	
3 to 4			Psychiatry Neurology 4 III Trimester 2-5 p. m.			
4 to 5	Clinical Patho- logical Conference Pathology 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimesters	Otology Lecture III Trimester	Military Science and Tactics 2	

\*Students who enter the School after the completion of their second year without credit for the clinical work given in this School will, in the third trimester of the third year, follow the schedule of the third trimester of the second year except that, in place of Pharmacology, they will take the afternoon work of the third trimester of the third year.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Third Trimester of Third Year and First and Second Trimesters of Fourth Year. Group B., Third Trimester; Group C., First Trimester; Group A., Second Trimester.\*

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	<p>Surgery 4. Ward Work, Barnes or St. Louis Children's Hospital.</p> <p>Surgery 6. Orthopedic Surgery, Barnes or St. Louis Children's Hospital.</p>					
12 to 1	Neurology Clinic Neurology 8	Surgery Clinic Surgery 4	Pediatric Clinic Pediatrics 4	Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 8 I and II Trimesters	Medicine Clinic Medicine 10
2 to 3	Otolaryngology O. P. D.	Laryngology O. P. D.	Ophthalmological Pathology I Trimester	Otolaryngology O. P. D.	Laryngology O. P. D.	
3 to 4			Psychiatry Neurology 4 III Trimester 2-5 p. m.			
4 to 5	Clinical Patho- logical Conference Pathology 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimesters	Otolaryngology Lecture III Trimester	Military Science and Tactics 2	

\*Students who enter the School after the completion of their second year without credit for the clinical work given in this School will, in the third trimester of the third year, follow the schedule of the third trimester of the second year except that, in place of Pharmacology, they will take the afternoon work of the third trimester of the third year.

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

1921-22

Schedule of Third Trimester of Third Year and First and Second Trimesters of Fourth Year. Group C., Third Trimester; Group A., First Trimester; Group B., Second Trimester.\*

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Section 1. Obstetrics 3. Ward Work, Barnes Hospital: 9-12 daily. Section 2. Pediatrics 3. Ward Work, St. Louis Children's Hospital: 9-10. Sections change at the middle of the trimester. Genito-Urinary Surgery is taken by Section 2.					
10 to 11	Genito-Urinary O. P. D. Surgery 5		Genito-Urinary O. P. D. Surgery 5			Genito-Urinary O. P. D. Surgery 5
11 to 12						
12 to 1	Neurology Clinic Neurology 3	Surgery Clinic Surgery 4	Pediatric Clinic Pediatrics 4	Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 3 I and II Trimesters	Medicine Clinic Medicine 10
2 to 3	Ophthalmology O. P. D.	Pediatric Clinic Pediatrics 3	Ophthalmological Pathology I Trimester	Ophthalmology O. P. D.	Pediatric Clinic Pediatrics 3	
3 to 4			Psychiatry Neurology 4 III Trimester 2-5 p. m.			
4 to 5	Clinical Patho- logical Conference Pathology 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimesters	Otology Lecture III Trimester	Military Science and Tactics 2	

\*Students who enter the School after the completion of their second year without credit for the clinical work given in this School will, in the third trimester of the third year, follow the schedule of the third trimester of the second year except that, in place of Pharmacology, they will take the afternoon work of the third trimester of the third year.



WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
Schedule of Fourth Year. Third Trimester

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Students who complete the course in accordance with the regular schedule will have the third trimester of the fourth year available for elective work; during this trimester credit must be gained for a minimum of 300 hours of elective work, 150 of which must be done in some one department.

Students who enter the School after the completion of their second year without credit for the clinical work given in this School in the third trimester of the second year will complete the required work of the fourth year during the mornings of this trimester. The afternoons of the third trimester of the fourth year will be available for elective work; during this trimester credit must be gained for a minimum of 75 hours of elective work, which may be taken in not more than two subjects.

Choice of elective courses is subject to the approval of the head of the department in which the work is to be done.

# Washington University

Frederic A. Hall, A.M., Litt.D., L.H.D., LL.D., Chancellor

- I. The College (Skinker road and Lindell boulevard)  
George O. James, Ph.D., Dean
  - II. The School of Engineering (Skinker road and Lindell boulevard)  
Walter E. McCourt, A.M., Dean
  - III. The School of Architecture (Skinker road and Lindell boulevard)  
Walter E. McCourt, A.M., Dean
  - IV. The School of Commerce and Finance  
(Skinker road and Lindell boulevard)  
William F. Gephart, Ph.D., Dean
  - V. The Henry Shaw School of Botany (Shenandoah and Tower Grove avenues)  
George T. Moore, Ph.D., Engelmann Professor of Botany
  - VI. The Graduate School (Skinker road and Lindell boulevard)  
Otto Heller, Ph.D., Chairman of the Board of Graduate Studies
  - VII. The School of Law (Skinker road and Lindell boulevard)  
Richard L. Goode, A.M., LL.D., Dean
  - VIII. The School of Medicine (Kingshighway and Euclid avenue)  
Nathaniel Allison, M.D., Dean
  - IX. The School of Dentistry (Twenty-ninth and Locust streets)  
John H. Kennerly, M.D., D.D.S., Dean
  - X. The School of Fine Arts (Skinker road and Lindell boulevard)  
Edmund H. Wuerpel, Director
  - XI. Division of University Extension (Skinker road and Lindell boulevard)  
Frederick W. Shipley, Ph.D., Director
- 

The following schools are also conducted under the charter of the University:

Mary Institute—A Preparatory School for Girls (Waterman and Lake avenues)  
Edmund H. Sears, A.M., Principal

The Training School for Nurses (600 S. Kingshighway)  
Helen Wood, A.B., Superintendent

