SCHOOL OF MEDICINE
ANNOUNCEMENT 1936-37

Columbia, Missouri
FACULTY

FREDERICK A. MIDDLEBUSH, President of the University, Professor of Political Science and Public Law.

DUDLEY S. CONLEY, Dean of the Faculty of Medicine and Professor of Surgery.

MAX M. ELLIS, Professor of Physiology.

CHARLES W. GREENE, Professor of Physiology and Pharmacology.

ADDISON GULICK, Professor of Biochemistry

M. PINSON NEAL, Professor of Pathology

DAN G. STINE, Professor of Medicine.

CLAUDE R. BRUNER, Associate Professor of Ophthalmology and Otolaryngology.

DEA B. CALVIN, Associate Professor of Biochemistry.

MERLE P. MOON, Associate Professor of Medical Bacteriology and Preventive Medicine.

MILTON D. OVERHOLSER, Associate Professor of Anatomy.

DUDLEY A. ROBBETT, Associate Professor of Pathology.

WILLIAM J. STEWART, Associate Professor of Orthopedic Surgery.

NEWELL R. ZIEGLER, Associate Professor of Bacteriology and Preventive Medicine.

RICHARDS S. BATTERSBY, Assistant Professor of Pediatrics.

RICHARD LEE CROUCH, Assistant Professor of Anatomy.

KARL D. DIETRICH, Assistant Professor of Surgery.

ROBERT M. MOORE, Assistant Professor of Pathology.

T. LAMAR WADDLE, Assistant Professor of Physiology.

MILDRED W. BROWN, Instructor in Pathology.

MAURICE E. COOPER, Instructor in Medicine.

LEMEN J. WELLS, Instructor in Anatomy.

ORVILLE H. BARKS, Assistant in Anatomy.

J. KENNETH THOMPSON, Assistant in Anatomy

PAUL P. PIERCE, Assistant in Physiology.

HOWARD L. TERRY, Assistant in Physiology.

BURTIS A. WESTFALL, Assistant in Physiology.

DENNIS T. MAYER, Assistant in Biochemistry.

OLIVER H. PETERSON, Assistant in Medical Bacteriology and Preventive Medicine.
STAFF AND ADMINISTRATORS
of the
UNIVERSITY HOSPITALS

Dudley S. Conley, M. D. ........................................ Director of the Hospitals
Dan G. Stine, M. D. ........................................... Director of Medical Science
M. Pinson Neal, M. D. ........................................ Pathologist and Director of Hospital Laboratory
William J. Stewart, M. D. ..................................... Orthopedist
Newell R. Ziegler, M. D. ....................................... Bacteriologist
Claude R. Bruner, M. D. ........................................ Oculist and Aurist
Richard S. Batterby, M. D. .................................... Pediatrist
August W. Kampschmidt, M. D. ............................. Dermatologist
D. V. Lemone, M. D. ........................................... Roentgenologist
H. M. Young, M. D. ........................................... Urologist
C. W. Digges, D. D. S. ......................................... Consulting Dental Surgeon
Karl D. Dietrich, M. D. .......................................... Assistant Surgeon
Kenneth C. Beck, M. D. ....................................... Resident Physician
Maurice E. Cooper, M. D. ..................................... Resident Physician
Frank E. Dexheimer, M. D. .................................... Anesthetist
Everette S. Calde Mayer, M. D. .............................. Resident Physician
Mildred W. Brown, M. S. ...................................... Assistant, Hospital Laboratory
Louise Hilligas, R. N. ........................................... Superintendent
Helen Nahm, R. N. ............................................... Director of Nursing Personnel
Amy L. Elkins, R. N. ........................................... Assistant Director of Nursing Personnel
Susan Tillery, M. A. ........................................... Dietitian
Thelma Southwick ................................................ Supervisor, Operating Rooms
Barbara Freeman, R. N. ........................................ Supervisor, Student Health Service
Ruth Williamson, R. N. ......................................... Supervisor, Medical and Surgical Service
Mildred McGuire ................................................ Supervisor, Obstetrical Service
Nellie Bendon, R. N. ........................................... Supervisor Communicable Disease Nursing Service
Nadyne Anderson, R. N. ....................................... Supervisor, Orthopedic Service
Faye Franklin, R. N. ........................................... Night Supervisor
Elizabeth Kelley, A. B. ......................................... Physiotherapist

UNIVERSITY HEALTH SERVICE

D. G. Stine ......................................................... Chairman, Physician
D. S. Conley, M. D. ........................................... Surgeon
C. R. Bruner, M. D. ........................................... Oculist and Aurist
W. J. Stewart, M. D. ........................................... Orthopedist
K. D. Dietrich, M. D. .......................................... Assistant Surgeon
Kenneth C. Beck, M. D. ..................................... Resident Physician
Maurice E. Cooper, M. D. .................................. Resident Physician
Everette S. Calde Mayer, M. D. ............................... Resident Physician
F. E. Dexheimer, M. D. ....................................... Anesthetist
M. P. Neal, M. D. ................................................ Pathologist
N. R. Ziegler, M. D. ........................................... Bacteriologist
Historical: The School of Medicine of the University of Missouri was built upon the Medical Department of Kemper College ("McDowell Medical College") founded in St. Louis in 1840. This was the first medical school established west of the Mississippi river. In 1845 it became a department of the University of Missouri. As such it functioned for ten years, being discontinued in 1855. The School of Medicine was re-established on the University Campus in Columbia in December, 1872, with a curriculum of only two years, as in most medical schools in the country. In 1891 the curriculum was extended to three years, and in 1899, to the full four years. In 1910 the last two years were discontinued because of inability to finance the expansion necessary for teaching the clinical subjects. From 1910 on the University has maintained only the two preclinical years of the regular medical course.

Completion of the first two years of the medical curriculum leads to the degree of Bachelor of Science in Medicine. Students who obtain this degree at the University of Missouri are accepted by the leading schools of the country for the completion of the clinical years.

Organization and Support: The School of Medicine of the University of Missouri is an integral part of the University, being located on the University Campus. In addition to medical work it offers courses for arts and graduate credit to students enrolled in other division of the University in so far as its capacity allows. The School of Medicine is supported by funds assigned to it by the University from state appropriations and by special laboratory fees of students.

Policy: The School of Medicine always has stood for the highest standards of medical education. It was a pioneer in introducing and developing laboratory methods. Laboratory work in anatomy, chemistry and microscopy was required from the date of re-establishment in 1872. A few years later laboratory work in pathology and physiology was added. In 1891 the laboratory of histology and bacteriology were established. The School of Medicine of the University of Missouri was one of the first schools to place these fundamental medical sciences in charge of specialists required to devote their time exclusively to teaching and investigation. A thorough course of instruction with the highest standard of scholarship has been established and maintained.

The aim of the School of Medicine is threefold:

(1) To give thorough laboratory and clinical training in all medical subjects.

(2) To contribute to the advancement of medicine by original investigation in the various sciences upon which modern medicine is based.
(3) To promote the diffusion of medical knowledge throughout the state.

BUILDINGS AND EQUIPMENT

The School of Medicine consists at the present of three buildings: McAlester Hall, where most of the preclinical teaching is centered, and the University Hospitals, Parker Memorial and Noyes Hospital. The former hospital was made possible by the gift of William L. Parker and was therefore named the Parker Memorial Hospital. In the words of the donor the hospital is “for the benefit of the School of Medicine.” The surgical amphitheater and operating rooms were provided by a gift of the late Adolphus Busch. In 1924 a new building connected with Parker Memorial Hospital was completed and named the Noyes Hospital after Dean Guy Lincoln Noyes. These hospitals are supplied with modern service laboratory and complete X-ray, metabolic and electrocardiographic equipment.

McALESTER HALL, UNIVERSITY OF MISSOURI

MEDICAL LABORATORY BUILDING, McALESTER HALL: This is a three-story stone and brick building, 325x48 feet, specially designed for the medical laboratories, and is well equipped to meet the needs of modern laboratory instruction and research. The following is a brief list of the various rooms and equipment in this building.

The Department of Anatomy occupies the greater part of the third floor of the medical building. For class work there are available laboratories for human dissection, topographic and applied anatomy, and microscopic anatomy, with all the necessary equipment and material for a thorough study of these subjects. A lecture room and technical preparation room, and the laboratories of the staff with adequate equipment for research are also located on this floor.

The Department of Physiology and Pharmacology occupies the following rooms: A large laboratory, with adjoining storeroom, equipped with tables, lockers and sets of apparatus for the students in physiology and pharmacology; a blood pressure room, particularly for mammalian experiments; a research laboratory thoroughly equipped for advanced students in physiology and pharmacology; animal room, mechanics’ shop; lecture room (in common with pathology).

On the third floor of the Medical Building the United States Bureau of Fisheries Research Laboratories occupy a suite of rooms, specially equipped for physiological and biological research on the lower animals and for problems of general physiology. The Bureau of Fisheries has provided a considerable amount of special apparatus for this research unit which draws its personnel from graduate students in the University.
The Department of Bio-chemistry has a well-equipped teaching laboratory with a capacity of 48 students, and a smaller laboratory for advanced classes, in addition to space for research, for offices, seminar and the like. The equipment is adapted for work in general physiological chemistry, blood chemistry, urine analysis and nutrition.

Laboratories and equipment of the rooms which serve as offices and work room for the personnel of the Department of Pathology are as follows: A large preparation or technician's room; store rooms; an animal room; a room for autopsies; a room for gross museums specimens, work in gross pathology and students in advanced research pathology; a museum collection of specimens in Kaiserling for systematic demonstration of gross pathology; a student slide loan collection of over 300 slides representing so far as possible the various histological phases of the more common disease processes; modern microscopes with oil-immersion lenses for rental to students; equipment for a limited number of students in clinical pathology; balopticon projection apparatus for slides and opaque objects; microscope projection apparatus; lantern slides; an extensive collection of demonstration slides for microscope projection; teaching laboratory and lecture room.

The Department of Bacteriology occupies four rooms in the basement and three on the first floor. The teaching laboratory is used in conjunction with pathology. In the basement, rooms are equipped for the preparation of culture media, steam sterilizers, electric centrifuge, frigidaire cold storage, etc. One room is reserved especially for the inoculation of animals, and one for running of Wassermann's tubing vaccines and other work requiring special care. A large room is used for teaching purposes in advanced bacteriology and serology, as well as the routine examinations of specimens from the University Hospitals and from physicians throughout the State. In the office on the first floor is kept a large collection of lantern slides, hand-made charts and apparatus for the teaching of hygiene. The two smaller rooms are used for research purposes. The department owns a small number of modern microscopes with oil immersion lenses for special students. Microscopes for general use are shared with pathology.

Medical Library: The medical library, located in the medical building, contains 12,992 volumes and the more important current journals. The principal medical works of reference are included and 94 leading medical periodicals are received regularly and placed on file. Complete sets of most of these journals are available. The main University Library also contains works of interest and value to medical sciences.

The library has a complete card catalog of all its books and periodicals. Books may be loaned to any reputable physician in the state provided he pays transportation charges on them. The out-of-town borrower should indicate
the subject on which he wants information if he is unable to give the author and title of the books.

UNIVERSITY HOSPITALS

PARKER MEMORIAL AND GUY LINCOLN NOYES HOSPITALS: The hospitals provide a total of 100 beds for general hospital purposes. They are open to the sick of Missouri for treatment of acute and chronic cases. Orthopedic service for the state care of indigent crippled children is at present being handled in the University Hospitals. The hospitals furnish facilities for teaching purposes in connection with courses offered in the curriculum of the sophomore year.

RATING

The School of Medicine of the University is a member of the Association of American Medical Colleges and is rated in the highest class by the Council on Medical Education of the American Medical Association. In equipment, courses of study, number and ability of the faculty, and requirements for admission, it complies with the standards established by the Council.

FEES AND EXPENSES

The Library, Hospital and Incidental Fee is charged at the rate of $4.25 per credit hour. There are no laboratory fees or deposits. Textbooks and stationary cost from $25 to $50 per year.

Each student is required to purchase each semester for $5.75, a student activity ticket.

The non-resident tuition fee, payable by all students who are not bona-fide residents of Missouri, is $25.00 per semester.

Candidates for admission to the School of Medicine are required to deposit with the Secretary of the University the sum of $25.00 upon notification of acceptance. This deposit is not refundable but may be applied toward the student's fees upon matriculation in the School.

For further details respecting the above fees see the general University catalog.

FELLOWSHIPS AND SCHOLARSHIPS: The Clarence Martin Jackson Scholarship in Anatomy and the Charles Wilson Greene Scholarship in Physiology: Established in the School of Medicine by the Class of 1909 and continued by other interested alumni in the annual value of $125 each, to be awarded to the students doing the most meritorious piece of advanced research work, preferably leading to the degree of Master of Arts in Medical science. The selection will be made by the Faculty of Medicine.

In 1935 The Rollins Scholarship in Medicine was awarded to Ronald M. Buck.
STUDENT AND GRADUATE ASSISTANTS: There are a limited number of student and graduate assistantships open to medical students who have completed their first year of medical studies with superior grades. Men chosen for these positions divide their sophomore studies into two parts, assisting half time and carrying half time medical work. This requires an additional year but allows a superior student to obtain his Master of Arts degree in one of the preclinical departments and at the same time obtain some experience and elementary research. Salaries of $400 and $500 respectively are paid to these assistants.

REQUIREMENTS FOR ADMISSION

The requirements for entrance to the School of Medicine are the satisfactory completion of (1) a four-years’ high school course or its equivalent, and (2) the first six semesters’ work—90 normal credit hours—in the College of Arts and Science of the University of Missouri or the equivalent, and (3) the Medical Aptitude Test given by the Association of American Medical Colleges, usually in December of the last pre-medical year.

Pre-medical credit must include normal credit hours as follows: English, 6 hours, the satisfactory completion of the Junior English examination; German or French, 8 hours; general zoology, 8 hours, of which at least 4 hours must be laboratory work; general physics, 8 hours, of which at least 2 hours must be laboratory work; inorganic chemistry, 8 hours of which at least 4 hours must be laboratory and organic chemistry 5 hours, of which at least 2 hours must be laboratory work; general bacteriology, 3 hours; and such other subjects as are included in the underclassmen requirements of the College of Arts and Science of the University of Missouri. See the general catalog of the University of Missouri.

It should be noted that the requirement of two years of college work is the minimum requirement of the Association of American Medical Colleges. Almost all the leading Medical Colleges of the United States now require three years of college work for admission, some require the A. B. degree. Prospective medical students should make certain that they complete enough college work before admission to this school to satisfy the requirements for admission to the schools to which they may elect to transfer, after completing the two-year curriculum in medicine in this University.

While every effort will be made to aid students in transferring to the third year class at other schools, the University assumes no obligation for such transfer.

ADVANCED STANDING: Every applicant for advanced standing is required to present credentials from an accredited college, and to pass such examinations as may be required to show satisfactory completion of courses to those for which he seeks credit.
Moreover, the usual entrance requirements to the first-year class must be satisfied, and evidence as to character must be presented to the Dean of the Faculty of Medicine.

Special students will not be admitted to the school.

Classes are limited to forty students each.

Application for admission should be in the hands of the Registrar at the earliest possible time prior to the opening of the session.

New students are not enrolled in the classes at the beginning of the winter term unless they have finished satisfactorily all the courses that have been taken by the class into which admission is requested.

THE COMBINED COURSES IN ARTS AND MEDICINE

Students may receive the degree of Bachelor of Science (B. Sc.) upon compliance with the following regulations:

1. Regular enrollment in the School of Medicine.
2. Completion of the required curriculum in residence in the School of Medicine, or its equivalent.

Students who have completed the junior year in the College of Arts and Science may count toward the A. B. degree or 30 hours in the School of Medicine. They must, however, have 94 hours of credit in non-medical subjects, and must meet the major and minor requirements in Arts and Science.

Students from the University of Missouri entering the Medical School must have completed in their pre-medical years the courses and credit hours in the list that follows:

Citizenship Economics, History, Political Science, Sociology, at least 4 hrs.
English Composition 1f and 2w 6 hrs.
Elementary Logic 1f or w, or General Mathematics 1f or w 3 hrs.
German or French 1f or w, and 2f or w 10 hrs.
Physics 1f or w and 2w 8 hrs.
Chemistry 1f or w, 25f or w, and 110 f or w 15 hrs.
Zoology 1f or w, and 4w 10 hrs.
General Bacteriology (Botany 3f or w) 3 hrs.

It is recommended that students taking the combined course in arts and medicine have the guidance of pre-medical advisors at each enrollment period.

The degree of Bachelor of Arts will be conferred in the College of Arts and Science upon completion of combined courses in the College of Arts and the School of Medicine.
Candidates for the degree of Bachelor of Arts must have completed three years of work in the College of Arts and the curriculum of the first year in the School of Medicine.

Students who have received the degree of Bachelor of Arts in the combined course just mentioned may receive the degree of Bachelor of Science upon completion of the second year curriculum in the School of Medicine.

All correspondence regarding admission should be addressed to the Registrar, University of Missouri, Columbia, Missouri.

The University reserves the right to cancel or change any course listed herein without further notice.

**Curriculum**

Hours exclusive of examination periods

<table>
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<tr>
<th>First Year</th>
<th>Weekly Class Hours</th>
<th>Total Clock Hours</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy</td>
<td>12</td>
<td>192</td>
<td>7</td>
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<tr>
<td>Embryology</td>
<td>6</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>Histology</td>
<td>4</td>
<td>64</td>
<td>2</td>
</tr>
<tr>
<td>Physiological Chemistry</td>
<td>11</td>
<td>176</td>
<td>6</td>
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<tr>
<td><strong>Totals</strong></td>
<td>33</td>
<td>528</td>
<td>19</td>
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</tbody>
</table>

| **Second Semester** | | | |
| Anatomy | 12 | 192 | 7 |
| Histology | 6 | 96 | 4 |
| Neuro-Anatomy | 6 | 96 | 4 |
| Physiology: | | | |
| Muscle and Nerve | 5 | 80 | 3 |
| Circulation and Respiration | 4 | 64 | 2 |
| **Totals** | 33 | 528 | 20 |

<p>| <strong>Second Year</strong> | | | |
| Bacteriology | 9 | 144 | 6 |
| Materia Medica | 4 | 64 | 2 |
| Physiology: | | | |
| Alimentary Mechanisms | 5 | 80 | 3 |
| Central Nervous System and Sense Organs | 4 | 64 | 2 |
| General Pathology | 10 | 160 | 6 |
| Topographic and Applied Anatomy | 4 | 64 | 3 |
| <strong>Totals</strong> | 36 | 576 | 22 |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Weekly Hours</th>
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<th>Credit Hours</th>
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<tr>
<td>Special Pathology</td>
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<td>6</td>
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<tr>
<td>General Hygiene</td>
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<td>32</td>
<td>2</td>
</tr>
<tr>
<td>Minor Surgery</td>
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<td>48</td>
<td>2</td>
</tr>
<tr>
<td>Physical Diagnosis</td>
<td>5</td>
<td>80</td>
<td>3</td>
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<td>Pharmacology</td>
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<td><strong>Totals</strong></td>
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<td><strong>560</strong></td>
<td><strong>21-23</strong></td>
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</tbody>
</table>

**ANATOMY**

101f. **Elementary Anatomy.** A course designed to outline a few of the fundamentals of both gross and microscopic anatomy. No actual dissection is undertaken, but dissections made by medical students are studied. (Prerequisite, five hours of general zoology.) (3) Mr. Crouch.

102f. **Embryology.** A study of the development of the individual based upon man and the higher mammals. Open only to medical and graduate students. (4) Mr. Wells; Mr. Barks.

103f. **Histology.** A study of the microscopic structure of the fundamental tissues of the human body. (2) Mr. Wells; Mr. Barks.

104w. **Histology.** A continuation of course 103f. A study of the microscopic structure of the organs of the human body. (4) Mr. Wells; Mr. Barks.

105f. **Human Dissection.** A study of the gross structure of the human body, dissection progressing in the following order: Thorax, superior extremities, neck and head. (7) Mr. Overholser; Mr. Crouch; Mr. Thompson.

106w. **Human Dissection.** A continuation of course 105f. Dissection of the abdomen, pelvis, perineum and lower extremities. (7) Mr. Overholser; Mr. Thompson.

107f. **Topographic and Applied Anatomy.** A course devoted to the practical consideration of the principal structures stressed in clinical surgery supplemented with a study of cross-sections of the human body. (105f and 106w are prerequisite.) (3) Mr. Crouch.

108w. **Neuro-Anatomy.** The gross and microscopic structure of the central nervous system and the sense organs are studied. (4) Mr. Crouch; Mr. Thompson.

200f and w. **Seminar.** The presentation and discussion of original investigation and current literature. Open to students in courses numbered above 200. (1)
201£ and 202w. Special Studies in Anatomy. The intensive study of regions or systems for specialization in medicine. This may include developmental and microscopic as well as gross anatomy. (102 to 106 are prerequisite.) (Hours to be arranged.) Mr. Overholser; Mr. Crouch; Mr. Wells.

290f and w. Research. The facilities of the department are available to students qualified to undertake investigation in anatomy. (4 to 8)

Bacteriology and Preventive Medicine

The courses listed below are designed not only for students in the School of Medicine, but also for those interested in other aspects of bacteriology.

5f, w. Preventive Medicine. Value of preventive medicine; methods of spread and the prevention of specific communicable diseases; elements of school hygiene. (2) credits. Mr. Ziegler and Staff.

No credit is given in the medical curriculum for course 5.

101£. Medical Bacteriology. Prerequisite, General Bacteriology and Organic Chemistry 110. The relation of bacteria to disease; the fundamental principles of infection, immunity and serum therapy. Sophomore medical students and others by permission. 9 hours (6) credits. Mr. Ziegler; Mr. Peterson.

102w. General Hygiene. Prerequisite, Bacteriology 101, or its equivalent. Deals in a somewhat detailed manner with the fundamental principles of public and personal hygiene. Sophomore medical students and others. 2 hours (2) credits. Mr. Moon; Mr. Ziegler.

200w. Immunity. Prerequisite, Bacteriology 101, Theory of Immunity; antigen-antibody reactions; opsonins; preparation of vaccines; Wassermann reaction. 4 hours (2) credits. Alternates with Bact. 202w. Not offered in 1936-37. Mr. Ziegler.

201£ and w. Special Investigations. Qualified students are assigned a problem in bacteriology or immunology for special study. Prerequisite, General Bacteriology and Organic Chemistry 112, or Medical Bacteriology. Hours and credit arranged. Mr. Ziegler; Mr. Moon.

202w. Public Health and Sanitation. Prerequisite, General Bacteriology and Organic Chemistry 110. Canning inspection; testing of disinfectants; bacteriology of water and sewage; sanitary surveys. 5 hours (3) credits. Permission of instructor required. Alternates with Bact. 200w, offered in 1936-37. Mr. Ziegler; Mr. Moon.

225£ and 226w. Advanced Bacteriology. Designed to give the student more detailed information and training in the newer aspects of bacteriology and immunology. Assigned reading and laboratory work with lectures
on special topics. (Hours and credits arranged.) MR. ZIEGLER; MR. MOON.

250f and w. SEMINAR IN BACTERIOLOGY. A presentation and critical discussion of current literature and original investigation in the field of Bacteriology and Immunology. (1) credit. MR. ZIEGLER.

290f and w. RESEARCH. Prerequisite, Bacteriology 225 or 226. Graduate students of suitable preliminary training may pursue original investigation in the field of Bacteriology and Immunology. Credit arranged. MR. ZIEGLER; MR. MOON.

BIOCHEMISTRY

Two beginning courses, 101w for 3 hours and 106f for 6 hours are offered. The two together give 8 hours.

101w. ELEMENTARY PHYSIOLOGICAL CHEMISTRY. An outline of vertebrate physiological chemistry, with principal reference to the conditions in man; about 25 lectures and 25 laboratory periods are given. Prerequisite, organic chemistry, 3 hours. Not open for medical credit. (3) MR. GULICK; MR. MAYER.

106f. PHYSIOLOGICAL CHEMISTRY. Prerequisite, organic chemistry, course 100f or equivalent. (6) MR. GULICK; MR. CALVIN; MR. MAYER.

108w. TOXICOLOGY. The chemical identification of toxic substances. (2) MR. GULICK.

200f and w. BIOCHEMISTRY SEMINAR. Roundtable reviews of research topics and literature, led by the staff and graduate students. (1) MR. GULICK.

203f and 204w. ADVANCED PHYSIOLOGICAL CHEMISTRY. A course extending and supplementing Course 106f. The prosecution of a short experimental problem required. (3-4) MR. GULICK.

205f and w. THE BLOOD. A chemical, physiological and clinical study. Prerequisite, 105f or equivalent. (3 or 4) MR. CALVIN.

208w. BIOCHEMICAL PREPARATIONS. The isolation and purification of biochemically important materials. (2-4) MR. CALVIN.

215f and 216w. BIOCHEMICAL PROBLEMS. Assigned problems in elementary research. (2-10) MR. GULICK; MR. CALVIN.

290f and w. RESEARCH. Investigation of unsolved problems under the guidance of the staff. MR. GULICK; MR. CALVIN.

MEDICINE

101w. PHYSICAL DIAGNOSIS. Lectures, demonstrations and practical exercises covering the field of the physical examination of the thorax. Practice in the use of instruments ordinarily used in auscultation and percussion especially with reference to the recognition of the physical signs of normal and disease processes in the respiratory and circulatory organs. (3) MR. STINE; MR. COOPER.
PATHOLOGY

The courses below listed are constructed and offered primarily for students in the School of Medicine, but are open to others meeting the requirements and offering acceptable prerequisites.

101f. GENERAL PATHOLOGY. The course consists of 64 lecture or recitation hours and 96 laboratory hours for sophomore students. (6) MR. NEAL; MR. MOORE; MR. ROBBETT.

102w. SPECIAL PATHOLOGY. A course of 64 lecture or recitation hours and 96 laboratory hours for sophomore students. Prerequisite 101f, General Pathology. (6) MR. NEAL; MR. MOORE; MR. ROBBETT.

In the courses 101f and 102w, General and Special Pathology, a varied collection of lantern slides, the projectoscope for, and with, histological slides are regularly used for class instruction and group drill. A loan collection of 380 slides is furnished to students for use in histopathology; therefore none of the laboratory hours are used for staining or mounting sections. Systematic exercises in anatomic diagnosis by means of Kaiserling specimens and available fresh material of the various lesions of each organ, are a part of the regular work. General Pathology, the first part to be considered, deals with the basic factors of disease; while Special Pathology, considered later, applies the principles of General Pathology to the various organs and tissues of the body. Throughout the courses emphasis is placed upon the relation between tissue changes, gross and microscopic, in a given disease, and the symptoms or manifestations accompanying such changes. Stress is placed upon attendance at autopsies. Students are instructed in the methods of post-mortem examinations and are required to prepare complete and orderly records of all autopsies seen.

104w. CLINICAL PATHOLOGY (Clinical Microscopy, Clinical Diagnosis). An elective course of 48 lecture, recitation or demonstration hours, and 64 laboratory hours for Sophomore students. A laboratory course covering a careful study in the chemical, bacteriological and microscopical methods used in examining blood, urine, sputum, gastric contents, spinal fluids, feces, exudates, etc., for diagnostic purposes. Prerequisites, Bacteriology, Histology and Physiologic Chemistry. (5) MR. NEAL; MR. MOORE; MISS BROWN.

103f, 106w. CLINICO-PATHOLOGIC CONFERENCES. An elective open to Sophomore and graduate students, and graduates of medicine. A weekly period is spent in reviewing autopsy or/surgical specimens in correlation with clinical history, signs and symptoms. Sixteen hours a semester, that may but need not run consecutively. (1) MR. NEAL; MR. ROBBETT; MR. MOORE.

201f and 202w. ADVANCED PATHOLOGY. Elective. The amount and
character of the work will depend upon the needs and qualifications of the student. Mr. Neal; Mr. Moore.

203f and 204w. Research. Elective. Open to properly qualified students. A reading knowledge of German is required and one of French is recommended. Mr. Neal; Mr. Moore.

PHYSIOLOGY AND PHARMACOLOGY

100w. Elementary Physiology. Intended for students who desire a general knowledge of physiology. Three lectures and two laboratory periods a week. (5) Mr. Ellis; Mr. Westfall.

102w. Physiology of Muscle and Nerve. This course presents the principles of the physiology of tissues as such, using the subject-matter of muscle and nerve, with emphasis on the physical and chemical conditions influencing their reactions. (3) Mr. Ellis; Mr. Pierce.

103f. Alimentary Mechanisms. The physiology of the alimentary canal, of the secretory processes, digestive mechanics, absorption, excretion, metabolism, internal secretions, heat regulation and reproduction. (3) Mr. Greene; Mr. Waddle; Mr. Terry.

104w. Physiology of the Circulation and Respiration. (2) Mr. Waddle; Mr. Terry; Mr. Greene.

105f. The Central Nervous System and Sense Organs. (2) Mr. Ellis; Mr. Pierce.

107f. Metrology and Prescription Writing. Metrology, materia medica, pharmaceutics, prescription writing and physiological assay of drugs and drug preparations. (2) Mr. Waddle; Mr. Terry.

108w. Pharmacology. The physiological action of drugs on man and lower animals. (5) Mr. Greene; Mr. Waddle.

200f and w. Seminar. Review of current literature. (1) Mr. Greene.

216w. Internal Secretion. An advanced study of hormone producing organs, experimental and clinical. Given in alternate years with course 224, Metabolism. (2-3) Mr. Greene.

218w. Clinical and Surgical Physiology. The modification of function by clinical and surgical processes. (2) Mr. Greene; Mr. Waddle.

222f. Advanced Respiration. An advanced consideration of the normal and modified respiratory activities of man and animals. (3) Mr. Waddle.

224w. Metabolism. A critical study of the heat-regulating mechanism: of temperature; food; and the dynamic activity of the thyroid and internal secreting glands. (2-3) Mr. Greene.

225. Advanced Circulation. A detailed study of the blood vascular
apparatus and its modification by drugs and by disease. (2-4) Mr. Greene.

231f and w. Special Studies. Elemental problems in physiology or pharmacology are assigned in preparation for research. Mr. Greene; Mr. Ellis; Mr. Waddle.

291f and w. Research. Opportunity is offered for research in fields of current physiological interests. Mr. Greene; Mr. Ellis; Mr. Waddle.

Surgery

102w. Minor Surgery. The lectures on the general principles of surgery include the consideration of asepsis and antisepsis, inflammation, healing of wounds, hemorrhage and sepsis. Material for demonstration of the minor surgical lesions is obtained from the dispensary. The laboratory periods are devoted to a study of bandaging and the preparation and use of surgical dressings. Each student will have twelve lessons on the practical application of bandages, including the general principles in the use of plaster bandages, adhesive dressings, splints, etc. The preparation of dressings and instruments is studied in the hospitals. (2) Mr. Conley; Mr. Dietrich; Mr. Bruner; Mr. Stewart.

103w. Medical Ethics and Economics. Four one-hour lectures during the second semester. Optional for second year medical students. Mr. Conley.

Electives

Students in the School of Medicine who are prepared to do so may, with the consent of the Dean, elect courses offered in other Divisions of the University.

Graduate Work in Medical Sciences

Special opportunity is given and every encouragement is offered to students who desire to do advanced work in any of the fundamental medical sciences. By a year of graduate work, the degree of Master of Arts (A. M.) may be secured, and in three years the degree of Doctor of Philosophy (Ph. D.). Advanced work of the research type in the fundamental medical sciences is highly desirable as a basis for the most thorough work in clinical medicine. It is especially advantageous, however, for those students who desire to specialize with a view to becoming teachers in any of these branches. The demand for such teachers far exceeds the supply, and offers an attractive career which many graduates of this school have followed with success. Fellowships and scholarships are available to those who are qualified for graduate work. For further details, see the University catalog or separate announcement of the Graduate School, University of Missouri.
EXTENSION SERVICE LABORATORY

The department of pathology will, within the limit of its capacity, receive for examination and diagnosis such material as may be submitted by physicians of the state.

Tissues for pathological examination and diagnosis should be sent direct to the Laboratory of Pathology in McAlester Hall on the University campus.

Bureau of Information. The School of Medicine of the University receives a large number of standard journals and reports. The school will be glad to have inquiries from physicians on any medical matter, and the latest information available will be given, or reference will be furnished where further information may be obtained. Inquiries not strictly medical will be referred for answer to other departments of the University. The Department of Preventive Medicine will be glad to assist in preparing outlines for lectures on public health topics.
THE UNIVERSITY HOSPITALS
MEDICAL STUDENTS
1935-36

Freshman Class

The following students are registered in the first year of Medicine at the University of Missouri School of Medicine.

John B. Allen
Williston P. Bunting
Bernard Capes
Oliver W. Cook
Raymond M. Curtis
Edward O. Damerson
Thomas H. Douglas
Louise T. Drake
Virginia R. Duffy
Kenneth T. Edmonds
Gene W. Farthing
Miles E. Foster, Jr.
John A. Gallaher
Charles L. Gates
Spencer S. Glenn
John F. Hansen
Ralph T. Harsh
Elvin D. Imes
J. Kenneth Kaufman
John O. Kennedy
Herbert Kirchman
William J. Martin
Jack E. Lieppman
Eldon C. Mohler
Norman C. McCubbin
Daniel W. Oungst
Paul P. Pierce
Morris Polsky
William E. Richter
Stanley D. Roper
Wilber L. Schooler
Rubin Shenberg
Herbert C. Senne
Carl D. Siegel
John T. Skinner
Jesse I. Smith  
Scott M. Smith  
William A. Summers  
Orville W. Towers  
Antonio J. Vitale  
Harold W. Warner  
George H. Zillgitt  

Sophomore Class

The following students are registered in the second year of Medicine at the University School of Medicine:

Edward P. Ambrose, Jr.  
Louis B. Arnoldi  
Orville L. Barks  
Harold F. Bertram  
Roger H. Boots  
Ronald M. Buck  
David W. Childs  
Kieffer D. Davis  
Charles H. Dixon  
Paul L. Douglas  
James T. Ferguson, Jr.  
Joseph L. Fisher  
J. William Fleming  
David F. Gorelick  
Carl W. Hall  
Garrett Hogg, Jr.  
H. Kermit Knocht  
Bernard M. Kramer  
Graham B. Ladd  
Maurice Leech  
William Leifer  
George E. Meyer  
Clyde S. Miller  
Marvin C. Morris  
Russel C. Norris  
George E. Parkhurst  
Roy W. Reed, Jr.  
Garland A. Reynolds  
Roy R. Robinson, Jr.
The following members of the Sophomore Class of 1934-35, whose first two years in Medicine were taken at the University of Missouri, are registered in the third-year class at the institutions indicated:

William B. Allen, A. B., B. S., Medical College of Virginia, Kansas City, Mo.
Sheldon B. Beecher, A. B., Washington University, Rosendale, Mo.
Arthur A. Brewer, A. B., B. S., Washington University, Maryville, Mo.
R. Earl Bruner, B. S., Northwestern University, Powersville, Mo.
Donald A. Campbell, A. B., B. S., Louisville University, Orrick, Mo.
Rexford G. Carter, B. S., Washington University, Columbia, Mo.
Kenneth C. Coffelt, B. S., Northwestern University, Springfield, Mo.
Thomas F. B. Darnell, B. S., Kansas University, Olathe, Kansas.
William H. Elliott, A. B., M. A., Harvard University, Bunceton, Mo.
John R. Forgrave, A. B., B. S., Northwestern University, St. Joseph, Mo.
W A. Kenneth Glover, A. B., B. S., Washington University, Halfway, Mo.
J. Franklin Handley, A. B., B. S., M. A., Pennsylvania University, Marshall, Mo.
Jeanne Hibbard, A. B., B. S., Michigan University, Columbia, Mo.
George W. Ittner, A. B., B. S., Washington University, St. Louis, Mo.
Charles S. Johnson, A. B., B. S., Louisville University, Warrensburg, Mo.
Kenneth E. Kerby, A. B., B. S., Washington University, Kansas City, Mo.
William M. Kitchen, A. B., B. S., Washington University, Glasgow, Mo.
Alwyn T. Kornblee, A. B., B. S., Rush Medical College, New York City, N. Y.
William B. Look, B. S., Washington University, Collinsville, Ill.
James O. Lottes, A. B., B. S., Louisville University, Cape Girardeau, Mo.
Wilbur P. McDonald, A. B., B. S., M. A., Pennsylvania University, St Joseph, Mo.
James W. McMullen, A. B., B. S., Washington University, Tarkio, Mo.
Robert H. Parker, B. S., Rush Medical College, Kansas City, Mo.
Joseph H. Printz, A. B., B. S., Washington University, Kansas City, Mo.
Samuel M. Sarno, A. B., B. S., Louisville University, St. Joseph, Mo.
Guy L. Tourney, A. B., B. S., Rush Medical College, Quincy, Ill.
Barnard C. Trowbridge, A. B., B. S., Washington University, Kansas City, Mo.
Alice L. Wakefield, B. S. Louisville University, New York City, N. Y.
William C. Wenkle, A. B., B. S., Washington University, Jefferson City, Mo.