UNIVERSITY OF KANSAS

The Thirty-Ninth Annual Summer Session

Schedule of Classes

June 10 to August 6, 1941

Directions for Summer Session Students

Registration

1. Register in Frank Strong Hall, June 10 or 11. Hours for registration, 8:30 to 12:00 and 1:30 to 5:00. Registration must precede enrollment for class work.
2. New students entering from high school must secure a registration permit from the Registrar, Room 124, Frank Strong Hall.
3. New students presenting credits for advanced standing must secure a registration permit from the Advanced Standing Committee, Room 120, Frank Strong Hall.
4. Former students are checked and receive a registration permit in the Registrar's Office, Room 122, Frank Strong Hall.
5. Students who may wish to apply work toward a graduate degree must register as graduate students. No permit required.
6. Special students attending summer session only and not wishing to apply work toward any degree should secure a special enrollment permit at the table in the rotunda of Frank Strong Hall. This table will be near the entrance to the Registrar's Office.

Enrollment

1. Enroll in Robinson Gymnasium, June 11. Enter at the east door. Hours for enrollment, 8:30-12:00 and 2:00-5:00.
2. Secure an enrollment card at the desk of your dean. Printed signs will direct you.
3. When your enrollment card is completed, have it approved or checked by your dean's representative. Present the card next to the scribes in the "pen" at the west end of the room. The clerk at the west door will collect your enrollment card as you leave. Enrollment is not valid unless your card is in the hands of this clerk.
4. Regular class work begins Thursday morning, June 12. Classes will meet Saturday, June 14. Note carefully the schedule for the time and place of each recitation. Two hour courses meet four periods per week. Three hour classes meet daily and the work of the sixth session may be arranged by agreement between the instructor and his class. Five hour classes meet two periods daily. In certain science courses additional time is required for completion of laboratory work.

5. It is very important that every student be present when classes are organized. The last day of enrollment for full credit is Saturday, June 14.
6. After Wednesday, June 11, all enrollments will be in the offices of the Deans of the various schools.
7. Summer Session offices will be open as follows: 8 to 12 a.m., and 2 to 4 p.m. Students are requested to confine conferences to these hours as nearly as possible.
8. Library services will include hours from 7:20 a.m. to 5:30 p.m. and from 7 p.m. to 10 p.m.
9. Final Examinations will be held Wednesday, August 6, except Schools of Law and Medicine.

Payment of Fees

Fees are due and payable at the Business Office, Room 123, Frank Strong Hall, immediately after completion of enrollment. They must be paid **within seven days** to avoid penalty.

College Buildings

Abbreviations: Anat., Anatomy Building; BCL., Bailey Laboratory; B., Blake Hall; F., Fraser Hall; G., Green Hall; H., Haworth Hall; J., Journalism Building; M., Marvin Hall; O., Oread High School; Obs., Observatory; R., Robinson Gymnasium; S., Snow Hall; FS., Frank Strong Hall; DM., Dyche Museum.

Course Groups

In the following schedule courses are numbered according to the plan indicated below except where otherwise specified:

1- 49	Courses open to freshmen and sophomores
50- 99	Courses open to junior and seniors
100-199	Courses open to juniors, seniors, and graduates
200-299	Courses open to seniors and graduates
300-399	Courses open to graduates

Schedule of Classes

GRADUATE SCHOOL

E. B. STOUFFER, Dean, 225 Frank Strong Hall

All students desiring graduate credit must enroll with the Dean of the Graduate School in Robinson Gymnasium on June 11, or in Room 225 Frank Strong Hall in case of late enrollment. The enrollment of a student who is a candidate for an advanced degree must be approved by a representative of his major department and by the dean.

Students who are not graduates of the University of Kansas must furnish official transcripts of their undergraduate records, or other evidence that they are eligible for admission to the Graduate School. Students who neglect this requirement will be enrolled only provisionally.

The following courses may be taken for graduate credit. Graduate students may enroll for other courses for undergraduate credit.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
ANATOMY:						
	Note: The following four courses are to last five weeks each.					
	First Term—June 11 to July 12					
161	The Upper Extremity		2	8:00-12:00 1:30-4:30	10 Anat.	Tracy
163	The Abdomen and Thorax		3	8:00-12:00 1:30-4:30	10 Anat.	Tracy
	Second Term—July 14 to August 16					
162	The Lower Extremity		2	8:00-12:00 1:30-4:30	10 Anat.	Latimer
164	The Head and Neck		3	8:00-12:00 1:30-4:30	10 Anat.	Latimer
	Note: The following courses are to last eight weeks:					
†187	Histology and Splanchnology		5	8:00-11:00	8 Anat.	Fletcher
†189	Neurology	187	3	1:30- 4:30	8 Anat.	Fletcher
	† Courses 187 and 189 will be offered only if 10 or more students enroll in each.					
ART:						
	Design					
163	Design V	34	3	9:30-12:20 MWF	316 FS	Whitney
164	Design VI	163	3	9:30-12:20 MWF	316 FS	Whitney
193	Design VII	164	3	9:30-12:20 MWF	316 FS	Whitney
194	Design VIII	193	3	9:30-12:20 MWF	316 FS	Whitney
301	Design	194	2-3	9:30-12:20 MWF	316 FS	Whitney
302	Design	301	2-3	9:30-12:20 MWF	316 FS	Whitney
	Handcrafts					
151	General Handcrafts IV	22	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
152	General Handcrafts V	151	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
181	Handcrafts VI		2	7:30- 9:20 MWF	318 FS	Whitney, Bate
182	Handcrafts VII	181	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
303	Handcrafts (Metalwork, Bookbinding, General Handcrafts)		2	7:30- 9:20 MWF	318 FS	Whitney, Bate
304	Handcrafts (Metalwork, Bookbinding, General Handcrafts)	303	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
	Clay Modeling					
159	Pottery III	30	1-2	7:30-10:20 TT	308 FS	Whitney, Bate

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
160	Pottery IV	159	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
189	Pottery V	160	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
190	Pottery VI	189	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
305	Pottery	190	2	Appt.	308 FS	Whitney, Bate
306	Pottery	305	2	Appt.	308 FS	Whitney, Bate
BACTERIOLOGY:						
150M	Pathogenic Bacteriology	5 hrs. Col. Chem.	5	7:30-11:20	506 S	Sherwood
154	Diagnostic Bacteriology	150 or 150M	5	7:30-11:20	511 S	Downs
261	Special Problems in Bact.	5 or more hours of Bact. at discretion of department.	1-8	Appt.	Appt.	Staff
300	Research Thesis in Bact.	10 hrs. Bact.	1-8	Appt.	Appt.	Staff
301	Research in Bacteriology	5 or more hours of Bact. at discretion of department.	1-8	Appt.	Appt.	Staff
BIOCHEMISTRY:						
150	Biological Chemistry	Chem 161	5			
	Lectures			7:30- 9:20 MTWTF	205 BCL	Nelson & Garber
	Laboratory			9:30-11:20 TT	103 BCL	Garber
151	Biological Chemistry (Quantitative Methods)	150 and Quan. Anal.	3	9:30-11:20 MTWTF 1:30- 3:30 MF	103 BCL	Nelson & Garber
301	Research in Biological Chem.	150, 151	2-5	Appt.	205 BCL	Nelson
BOTANY:						
153	Fungi	1	3	11:30-12:20 plus afternoon collecting trips	414 S	Mix
170	Botanical Problems	10 hrs. Botany including an introductory course in investigation	3-5	Appt.	Appt.	Mix
CHEMISTRY:						
†161	General Organic Chemistry	3	5			
	Lectures			7:30- 8:45	301 BCL	Stratton
	Laboratory			8:45-11:30	108 BCL	Stratton
†171	Physical Chemistry I	48 or 49, 44E or 161 and satisfactory preparation in physics and calculus	5			
	Lectures			7:30- 8:20	101 BCL	Taft
	Laboratory			8:30-11:30	110 BCL	Taft
302	Adv. Topics in Inorganic and Physical Chemistry	Gen. prerequisites and 171 and 172	2-3	11:30-12:20	201 BCL	Davidson
364	Advanced Organic Prep. and Analysis	Ditto	2-5	Appt.	106 BCL	Brewster
365	Organic Chemistry Research	Gen. prerequisites and 163 and 164	2-5	Appt.	106 BCL 302 BCL	Brewster Stratton
367	Adv. Topics in Organic Chemistry	Gen. prerequisites and 163	3	Appt.	106 BCL	Brewster
376	Physical Chemistry Research	Gen. prerequisites and 171,172,and 356	2-5	Appt.	300 BCL 114 BCL	Davidson Taft

† Accepted for graduate credit only for students majoring in subjects other than chemistry.

ECONOMICS:						
110	Valuation Accounting	10	3	7:30- 8:20	210 FS	Shannon
140	Land Economics		2	11:30-12:20	210 FS	Ise

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
161	Public Finance	5 to precede or accompany	3	9:30-10:20	204 FS	Ise
186	Credit Management	8 hrs. Econ.	2	8:30- 9:20	204 FS	Roark
187	Sales Promotion	Marketing	2	7:30- 8:20	212 FS	Seelye
194	Business Law I		3	10:30-11:20	212 FS	Roark
195	Business Law II		3	11:30-12:20	212 FS	Roark
198	War Economy Problems	1 or 90	2	10:30-11:20	204 FS	Stockton
300	Thesis		2-5	Appt.	114 FS	Staff
315	Seminar in Industrial Mgt.		1-3	Appt.	114 FS	Stockton

EDUCATION:

Note: A student must have had fifteen hours in education before he can be granted graduate credit in any course taken in the field of education.

Administration of Education

A158	Visual Educ. in Elem. and Secondary Schools		2	11:30-12:20	306 F	Montgomery
A159-273	Admin. of Smaller Schools and City School Admin.		3	8:30- 9:20	314 F	Jacobs
A250	Organ. and Admin. of Elem Schools		3	8:30- 9:20	112 F	Ullrich
A304	Seminar in Educ. Admin.		0	Appt.	115 F	Staff
A351	Adult Educ., Aims, Methods, and Organization	Consent of depart.	2	9:30-10:20	210 F	Russell
A371	Admin. of the Curriculum		2	10:30-11:20	312 F	Althaus
A376	The Business Admin. of City Schools	A273	3	8:30- 9:20	115 F	Twente
A378	Public School Relations		2	9:30-10:20	112 F	Ullrich
A379	The Establishment and Operation of a Junior College		3	7:30- 8:20	112 F	Chandler
A399	Research in Educ. Admin.	E272, A273, or A274	2-8	Appt.	120 F	Staff

Secondary Education

B260	Principles of Secondary Educ.		3	7:30- 8:20	206 F	Brooks
B261	Admin. of Junior and Senior High Schools		3	10:30-11:20	206 F	Brooks
B264	The Admin. of Extracurricular Activities		2	11:30-12:20	110 F	Jacobs
B377	Problems of Secondary School Practice		2	8:30- 9:20	206 F	Brooks

Measurements, Experimentation, and Supervision

E166	Statistical Methods		3	10:30-11:20	112 F	Ulmer
E310	Methods of Research		2	10:30-11:20	110 F	OBrien
E352	Educational Measurements		3	11:30-12:20	115 F	OBrien
E370	School Surveys		2	10:30-11:20	210 F	Twente
E377	Prob. of Elementary School Supervision		2	7:30- 8:20	314 F	Jacobs
E399	Research in Educational Measurement and Supervision	E252 and E272	2-8	Appt.	120 F	Staff

Theory and Practice of Teaching

†M194	Content and Methods of Phys. Educ.	Phys. Educ. 36	3	8:30- 9:20	202 R	Elbel
M269	Methods of Teaching in Elementary Grades		3	11:30-12:20	112 F	Ullrich
M291	The Teaching of Social Studies	Soc. Studies Major	3	11:30-12:20	210 F	Litchen
M340	Modern Teaching Procedures		3	11:30-12:20	206 F	Bayles
M377	Prob. in the Theory and Practice of Teaching	M240-M340 or consent of instructor	2	9:30-10:20	306 F	Bayles
M399	Research in Theory and Practice of Teaching	See catalogue	2-8	Appt.	107 F	Staff

Educational Psychology

‡P268	Psychology of Reading		2	8:30- 9:20	Oread	Mitchell
P281	Reading and Study Laboratory	P268-P368	2	1:30- 2:30	Oread	Mitchell
P300	Seminar in Educ. Psychology	Accompanies P399	0	Appt.	115 F	Staff

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
P354	Educational Clinic	P367 and consent of instructor	3-5	1:30- 4:20	16 F	Nash
P355	Mental Measurements of School Children		3	8:30- 9:20	312 F	Salyer
P367	Adv. Educational Psychology		3	9:30-10:20	206 F	Nash
P371	The Nontypical Child		3	10:30-11:20	310 F	Salyer
P399	Research in Educational Psychology and Guidance	Two from E252, P271, P255, P354	2-8	Appt.	18 F	Staff
	Educational Sociology					
S292	An Introduction to the Study of the Curriculum		2	9:30-10:20	210 F	Russell
S294	Construction of the Secondary School Curriculum	S292	3	9:30-10:20	110 F	Spain
S393	Construction of the Elementary School Curriculum	S292	3	11:30-12:20	312 F	Spain
S399	Research in Curriculum Construction	S292 and S293 or S294	2-8	Appt.	119 F	Staff
	Philosophy of Education					
T268	The Principles of Education		2	9:30-10:20	115 F	Schwegler
	Vocational Education					
V156	Vocational Education		2	8:30- 9:20	110 F	OBrien

† Either M194 or Physical Education 176 (See Phys. Educ.) will be given depending on student demand.

‡ Not open to students who have had P266-P366.

ENGLISH:

160	Elementary Old English	2, 10, 11	3	8:30- 9:20	213 F	Burnham
171	American Literature I	Ditto	3	10:30-11:20	213 F	Nelson
174	English Literature of the Eighteenth Century	Ditto	3	11:30-12:20	205 F	Paden
178	Shakespeare: Intensive Study	Ditto	3	7:30- 8:20	205 F	Hankins
183	Milton and His Contemporaries	Ditto	3	10:30-11:20	207 F	Ashton
188	The English Novel	Ditto	3	9:30-10:20	305 F	Hoopes
192	Elizabethan Prose and Verse	Ditto	3	9:30-10:20	205 F	Ashton
303	Intro. to Comparative Literature: Ancient Literature	See catalogue	3	8:30- 9:20	209 F	Hankins
324	Investigation and Conference	Ditto	2-5	Appt.	Appt.	
	(a) Studies in the English Renaissance					Hankins, Ashton
	(b) Studies in 19th Cent. Lit.					Nelson
	(c) Studies in Amer. Lit.					Nelson
	(d) Studies in Drama					Hankins, Ashton
325	Thesis		2-8	Appt.	Appt.	Hankins, Nelson, Ashton

ENTOMOLOGY:

162	Biological Survey	1 and one other course in Entomology	3-5	Arr.		Beamer
163	Field Entomology	1	3-6	7:30-10:20 and Appt.	301 S	Doering
264	Special Problems	Perm. of Dept.	2-6	Appt.	Appt.	Staff

GEOLOGY:

†159	Field Geology	11	5	June 11 to July 19	Appt.	Landes
‡359	Regional Field Geology	159 or equivalent	5	July 26 to Aug. 30	Appt.	Moore

† Will be given at Geology Camp near Canon City, Colorado. A minimum of 10 students is required.

‡A minimum of eight students is required.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
HISTORY:						
150	Greek History	5 hrs. Col. Hist.	3	8:30- 9:20	112 FS	Patterson
152	Medieval Institutions and the National State	Ditto	3	9:30-10:20	112 FS	Patterson
161	The British Empire	Ditto	3	9:30-10:20	214 FS	Realey
168	Latin America	Ditto	2	10:30-11:20	112 FS	Patterson
180	The American Colonies and the Revolution	Ditto	3	7:30- 8:20	110 FS	Paullin
181	The United States, 1783-1829	Ditto	3	11:30-12:20	110 FS	Paullin
306	Seminar in American History	Ditto	2	Appt.	108 FS	Paullin
JOURNALISM:						
*162	Magazine Writing	See catalogue	3	9:30-10:20	107 J	Flint
*180	Elements of Advertising	Rhetoric II	3	11:30-12:20	107 J	Flint
*193	History of American Journalism	Rhetoric II	3	10:30-11:20	107 J	Heady
300	Seminar in History and Prin. of Journalism	See catalogue	2	Appt.	4 J	Flint
or						
305	Seminar in Advertising	See catalogue	2	Appt.	4 J	Flint
310	Thesis		3-5	Appt.	4 J	Flint

* Courses will be given only if eight or more students enroll.

MATHEMATICS:						
152	Advanced Calculus	7	3	7:30- 8:20	219 FS	Babcock
153	Modern Analytical Geometry	7	2	9:30-10:20	217 FS	Smith
164	Field Work in Mathematics	7 or 3 and experience in teach. H.S. Math.	2	11:30-12:20	219 FS	Ulmer
303	Seminar		1-2	Appt.	217 FS	Smith
307	Higher Algebra		2	8:30- 9:20	219 FS	Babcock
320	Partial Differential Equations		3	11:30-12:20	217 FS	Smith
MECHANICAL ENGINEERING:						
	Note: One of the following will be offered, choice to be made on basis of student demand.					
150	Machine Design	M.E. 3 and A.M. 51	5	9:30-12:20	Mech. Lab.	Tait
153	Machine Design	A.M. 51	3	9:30-12:20	Mech. Lab.	Tait
MEDICAL COURSES AT KANSAS CITY:						
271	General Pathology		8	Appt.	Kansas City	Walker
272	Pharmacodynamics and Materia Medica	Physiol. 170 and 271	6	Appt.	Kansas City	Isenberger
282	Special Pathology—Autopsy Technique		2	Appt.	Kansas City	Walker
283	Clinical Pathology		2	Appt.	Kansas City	Weber
MUSIC:						
	Chorus					
165	Choral Repertoire and Advanced Conducting	1 yr. of conducting	2	9:30-10:20	131 FS	Swarthout
	History of Music					
341-342	Advanced History of Music		3	11:30-12:20	32 FS	Hirschler
	Musical Theory					
156	Form and Analysis II	26	2	9:30-10:20	32 FS	Hirschler
287-288	Instrumentation I & II	26	4	11:30-12:20	131 FS	Anderson
387 or 388	Advanced Instrumentation		3	8:30- 9:20	30A FS	Anderson

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	Public School Music					
169	Band and Orchestra Methods and Administration		2	1:30- 2:20	131 FS	Wiley
313	The Organization of School Music		3	10:30-11:20	37 FS	Miessner
314	Civic Music		3	8:30- 9:20	131 FS	Gaston
323-324	Seminar		2	Appt.	Appt.	Miessner, Gaston
	Thesis		1-4	Appt.	Appt.	Staff
	Organ					
161	Organ V		1-3	Appt.	FS	Staff
162	Organ VI		1-3	Appt.	FS	Staff
291	Organ VII		1-3	Appt.	FS	Staff
292	Organ VIII		1-3	Appt.	FS	Staff
311	Organ		1-3	Appt.	FS	Staff
312	Organ		1-3	Appt.	FS	Staff
	Pianoforte					
161	Piano V		1-3	Appt.	FS	Staff
162	Piano VI		1-3	Appt.	FS	Staff
291	Piano VII		1-3	Appt.	FS	Staff
292	Piano VIII		1-3	Appt.	FS	Staff
311	Piano		1-3	Appt.	FS	Staff
312	Piano		1-3	Appt.	FS	Staff
	Violin					
161	Violin V		1-3	Appt.	FS	Staff
162	Violin VI		1-3	Appt.	FS	Staff
291	Violin VII		1-3	Appt.	FS	Staff
292	Violin VIII		1-3	Appt.	FS	Staff
311	Violin		1-3	Appt.	FS	Staff
312	Violin		1-3	Appt.	FS	Staff
	Voice					
161	Voice V		1-2	Appt.	FS	Staff
162	Voice VI		1-2	Appt.	FS	Staff
291	Voice VII		1-2	Appt.	FS	Staff
292	Voice VIII		1-2	Appt.	FS	Staff
311	Voice		1-2	Appt.	FS	Staff
312	Voice		1-2	Appt.	FS	Staff
	PHILOSOSPHY:					
181	Aesthetics		3	9:30-10:20	103 FS	Osborne
184	Ethics of Government	See catalogue	2	11:30-12:20	103 FS	Osborne
	PHYSICAL EDUCATION:					
100	Principles of Community Recreation	3 hrs. Gen. Soc. & for P.E. majors not less than 10 hrs. P.E.	3	9:30-10:20	204 R	Allen
†176	Tests and Measurements in Physical Education		3	9:30-10:20	202 R	Elbel
200	The Theory and Practice of Athletic Training	10 hrs. P.E. & one 5 hr. course in Anat. or Physiol.	3	10:30-11:20	204 R	Allen
300	Special Problems in Phys. Educ.	15 hrs. Phys. Educ.	2-4	Appt.	107 R	Elbel
	PHYSICS:					
156a	Electrical Measurements I (D.C.)	1 yr. Col. Physics for 1 hr. Integ. Calc. and 152, or with 152 for 2 hrs.	1-2	Appt.	10 B	Kester

† Either Phys. Educ. 176 or Education M194 (See Education) will be offered depending on demand.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
156b	Electrical Measurements II (A.C.)	1 hr. 156a; 152 plus Integ. Calc.	1-2	Appt.	10 B	Kester
163	Physics Colloquium	1 hr. Col. Physics; 5 hrs. Jr.-Sr. Phys. or Astron. or 10 hrs. Jr.-Sr. allied science	1	Appt.	203 B	Staff
307	Research and Thesis		2-8	Appt.	Appt.	Staff
	Note: One of the following will be offered depending upon student demand.					
150	Mechanics	1 yr. Gen. Physics and Calc.	3	Appt.	205 B	Kester
311	Kinetic Theory of Gases	See catalogue	2	Appt.	201 B	Kester
	Note: One of the following will be offered depending upon student demand.					
151	Light Theory and Optical Instruments	1 yr. Gen.Physics and Calc.	3	Appt.	205 B	Stranathan
152	Electricity	1 yr. Col. Physics and Integ. Calc.	3	Appt.	201 B	Stranathan
PHYSIOLOGY:						
170	Physiology		5	7:30-11:20	24 FS	Stoland
271	Physiology	170	5	7:30-11:20	20 FS	Woodard
300	Research in Physiology		Appt.	Appt.	Appt.	Stoland
301	Seminar		1-2	Appt.	20 FS	Stoland, Woodard
POLITICAL SCIENCE:						
110	The American Constitution	6 hrs. Soc. Sci. incl. Ameri. Hist. or Amer. Govt. or equiv. teaching exp. in civics	2	11:30-12:20	104 FS	Maddox
135	Current American Foreign Policy	10 or one course in Amer. Hist.	2	10:30-11:20	104 FS	Chubb
152	National Administration	10	2	8:30- 9:20	322 FS	Chubb
153	The Politics of Democracy	Ditto	3	9:30-10:20	104 FS	Gibson
164	International Relations	1 or 10	3	7:30- 8:20	104 FS	Chubb
304	Graduate Seminar		2-5	Appt.	Appt.	Staff
306	Thesis		2-5	Appt.	Appt.	Staff
PSYCHOLOGY:						
151	The Normal and Delinquent Child	3 hrs. Gen. Psych.	3	8:30- 9:20	5 FS	Sarvis
154	Abnormal Psychology	Ditto	3	10:30-11:20	5 FS	McCord
158	Psychology of Salesmanship and Advertising	Ditto	3	9:30-10:20	5 FS	Sarvis
159	Psychology of Learning	Ditto	3	7:30- 8:20	5 FS	McCord
165	Psychological Clinic I	152 & Consent instr.	2-3	Appt.	Appt.	Sarvis
166	Psychological Clinic II	165 & consent instr.	2-3	Appt.	Appt.	Sarvis
168	Advanced Psychology	8 hrs. Psych. and consent dept.	2-3	Appt.	Appt.	Staff
169	Advanced Psychology	11 hrs. Psych. and consent of dept.	2-5	Appt.	Appt.	Staff
304	Thesis in Psychology		2-5	Appt.	Appt.	Staff
305	Special Topics		2-5	Appt.	Appt.	Staff
ROMANCE LANGUAGES AND LITERATURE:						
	Spanish					
163	Nineteenth Century Drama	5	3	9:30-10:20	107 FS	Shoemaker
300	Seminar		3	10:30-11:20	107 FS	Shoemaker
311	Studies in Modern Spanish Lit.		2	8:30- 9:20	107 FS	Shoemaker
314	Thesis		1-4	Appt.	Appt.	Shoemaker

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
SOCIOLOGY:						
152	Rural Sociology	1 or 50	2	7:30- 8:20	208 FS	Smith
161	Contemporary Civilization in the United States	Ditto	3	11:30-12:20	208 FS	Eldridge
169	Criminology	2	3	10:30-11:20	216 FS	Elliott
182	Personality Problems and Social Relations	1 or 50	2	9:30-10:20	216 FS	Eldridge
185	Social Conflict	Ditto	2	8:30- 9:20	216 FS	Gibson
300	Seminar of Sociology		2-5	Appt.	216 FS	Eldridge
	Thesis		2-6	Appt.	Appt.	Staff
SPANISH:						
	See Romance Languages and Literature.					
SPEECH AND DRAMATIC ART:						
150	Speech Correction	1 and consent instr.	2	11:30-12:20	103 G	Anderson
154	Play Directing	11	3	8:30-9:20	3 G	Dixon
ZOOLOGY:						
†103	Vertebrate Morphology	10 hrs. Biol. incl. Zoology 1	5			Taylor
	Lecture			9:30-10:20	101 S	
	Laboratory			7:30- 9:20	220 S	
	† Either 103 or 3 (Comparative Anatomy—undergraduate) will be given depending on demand.					
159	Animal Distribution	10 hrs. Zoology	2	10:30-11:20	101 S	Taylor
300	Thesis		1-5	Appt.	Appt.	Lane or Taylor
305	Graduate Seminar		1-5	Appt.	Appt.	Lane or Taylor
325	Graduate Research		1-8	Appt.	Appt.	Lane or Taylor

COLLEGE OF LIBERAL ARTS AND SCIENCES

PAUL B. LAWSON, Dean, 121 Frank Strong Hall
J. H. Nelson, Associate Dean, 121 Frank Strong Hall

* Not open to Freshmen.

Courses numbered 1 to 49 are open to freshmen and sophomores.
Courses 50 to 99 are open to juniors and seniors.
Courses 100 to 199 are open to seniors and graduates.
Courses 200 to 299 are open to seniors and graduates.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
ANATOMY:						
	Note: The following four courses are to last five weeks each.					
	First Term—June 11 to July 12					
161	The Upper Extremity		2	8:00-12:00 1:30- 4:30	10 Anat.	Tracy
163	The Abdomen and Thorax		3	8:00-12:00 1:30- 4:30	10 Anat.	Tracy
	Second Term—July 14 to August 16					
162	The Lower Extremity		2	8:00-12:00 1:30- 4:30	10 Anat.	Latimer
164	The Head and Neck		3	8:00-12:00 1:30- 4:30	10 Anat.	Latimer
	Note: The following courses are to last eight weeks:					
†187	Histology and Splanchnology		5	8:00-11:00	8 Anat.	Fletcher
†189	Neurology	187	3	1:30- 4:30	8 Anat.	Fletcher
	† Courses 187 and 189 will be offered only if 10 or more students enroll in each.					

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
ART:						
	Design					
13	Design I		2	8:30-12:20 TT	316 FS	Whitney
14	Design II	13	2	8:30-12:20 TT	316 FS	Whitney
33	Design III (Professional cr.)	14	2	9:30-12:20 MWF	316 FS	Whitney
34	Design IV (Professional cr.)	33	2	9:30-12:20 MWF	316 FS	Whitney
163	Design V (Professional cr.)	34	2	9:30-12:20 MWF	316 FS	Whitney
164	Design VI (Professional cr.)	163	2	9:30-12:20 MWF	316 FS	Whitney
	Handcrafts					
181	Handcrafts VI (Professional cr.)	2	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
182	Handcrafts VII (Professional cr.)	181	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
	‡Clay Modeling					
29	Pottery I		1-2	7:30-10:20 TT	308 FS	Whitney, Bate
30	Pottery II	29	1-2	7:30-10:20 TT	308 FS	Whitney, Bate

‡ A maximum of two hours credit is allowed toward the A.B. degree.

Note: The following courses in Drawing and Painting will be offered on a private lesson basis. In addition to the regular incidental and model fee, the student is to pay a private lesson fee according to the following schedule: 1 hr. credit—$10.00; 2 hrs. credit—$15.00; 3-4 hrs. credit—$20.00; 5-6 hrs. credit—$25.00; 7-8 hrs. credit—$30.00.

	Drawing and Painting					
1- 2	Freehand Drawing I & II (Non-Professional credit)		1-2	Appt.	Appt.	Silks
33-34	Still Life Painting I & II (Professional credit)	1 and 2	1-2	Appt.	Appt.	Silks
ASTRONOMY:						
12	Descriptive Astronomy	1 yr. each H.S. Alg. and Geom.	3	Appt.	Obs.	Storer
BACTERIOLOGY:						
†*49	Man and Microbes		3	11:30-12:30	502 S	Sherwood
†150M	Pathogenic Bacteriology	5 hrs. Col. Chem.	5	7:30-11:20	506 S	Sherwood
154	Diagnostic Bacteriology	150 or 150M	5	7:30-11:20	511 S	Downs
261	Special Problems in Bact.	5 or more hours of Bact. at discretion of dept.	1-8	Appt.	Appt.	Staff

† Course 150M open for only three hours credit to those who have taken 49.

BIOCHEMISTRY:						
150	Biological Chemistry	Chem. 161	5			
	Lecture			7:30- 9:20 MTWTF	205 BCL	Nelson, Garber
	Laboratory			9:30-11:20 TT	103 BCL	Garber
151	Biological Chemistry (Quantitative Methods)	150 and Quan. Anal.	3	9:30-11:20 MTWTF	205 BCL	Nelson Garber
				1:30- 3:30 MF	103 BCL	Nelson, Garber
BOTANY:						
1	The Living Plant		5	7:30-10:20	401 & 417 S	Mix
61	Trees and Shrubs		3	10:30-11:20	417 S	Durell
153	Fungi	1	3	11:30-12:20	414 S	Mix
170	Botanical Problems	See catalogue	3-5	Appt.	Appt.	Mix

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
CHEMISTRY:						
3	Inorganic Chemistry and Qualitative Analysis 2		5			Davidson
	Lecture			7:30- 8:30	305 BCL	
	Laboratory			8:30-12:00	206 BCL	
*48	Quantitative Analysis 3		3			Taft
	Lecture			11:00-12:00 TWTF	101 BCL	
	Laboratory			8:30-11:00 TWTF	110 BCL	
161	General Organic Chemistry 3		5			Stratton
	Lecture			7:30- 8:45	301 BCL	
	Laboratory			8:45-11:30	108 BCL	
171	Physical Chemistry I	49, 44E or 161; physics and calculus	5			Taft
	Lecture			7:30- 8:20	101 BCL	
	Laboratory			8:30-11:30	110 BCL	
ECONOMICS:						
1	Introductory Economics		3	9:30-10:20	212 FS	Seelye
*5	Price and Distribution		3	8:30- 9:20	210 FS	Ise
9	Accounting I	12 hrs. Col. credit	3	10:30-11:20	210 FS	Shannon
80	Marketing	5 or with 5	3	8:30- 9:20	212 FS	Seelye
110	Valuation Accounting (Professional credit)	10	3	7:30- 8:20	210 FS	Shannon
140	Land Economics		2	11:30-12:20	210 FS	Ise
161	Public Finance	5 or with 5	3	9:30-10:20	204 FS	Ise
194	Business Law I (Professional credit)		3	10:30-11:20	212 FS	Roark
195	Business Law II (Professional credit)		3	11:30-12:20	212 FS	Roark
198	War Economy Problems	1 or 90	2	10:30-11:20	204 FS	Stockton
EDUCATION:						
	(Professional Credit)					
A50	Intro. to School Administration		2	7:30- 8:20	115 F	Althaus
B260	Prin. of Secondary Education	Fund. Group	3	7:30- 8:20	206 F	Brooks
B264	Admin. of Extracurricular Activities	Ditto	2	11:30-12:20	110 F	Jacobs
E50	Intro. to Educational Measurements		2	9:30-10:20	312 F	Althaus
E166	Statistical Methods	Fund. Group	3	10:30-11:20	112 F	Ulmer
H64	A Survey of American Educ.		2	8:30- 9:20	210 F	Ulmer
M64	The Teaching of Music in Senior High School		2	9:30-10:20	37 FS	Gaston
†M194	Content and Methods of Physical Education	P.E.36 and Fund. Group	3	8:30- 9:20	202 R	Elbel
M291	The Teaching of Social Studies	Fund. Group; major in one of the social sciences	3	11:30-12:20	210 F	Litchen
P50	Educational Psychology	Psych. 1 or 50	3	10:30-11:20	306 F	Van Swearingen
S292	An Intro. to the Study of the Curriculum	Fund. Group	3	7:30- 8:20	210 F	Russell
T268	The Prin. of Education	Fund. Group	2	9:30-10:20	115 F	Schwegler
V156	Vocational Education	Ditto	2	8:30- 9:20	110 F	OBrien
ENGINEERING:						
	(Professional Credit)					
‡A.M. 1	Applied Mechanics	Math 2 & 3 & Physics 7a	2	10:30-11:20	110 M	Jones

† Either M194 or Physical Education 176 (See Phys. Educ.) will be given depending on demand.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
‡A.M. 50	Applied Mechanics	A.M. 1 and Math.7	3	9:30-10:20	110 M	Jones
‡A.M. 51	Strength of Materials	A.M. 1 and Math 7 or 7e	4	7:30- 9:20	Mech. Lab.	Tait
¶M.E. 45	Ground School (Non-Professional Credit)		3	7:30	115 M	Henry
‡C.E. 11	Elementary Surveying		3	1:30- 5:20	11 M	Brown

‡ Only four regular engineering courses will be given. See schedule for School of Engineering for complete list of courses from which the four courses will be chosen.

¶ Contingent upon continued appropriations from United States Government.

ENGLISH:

1	Rhetoric I		3	10:30-11:20	205 F	Paden
10	English Literature		2	11:30-12:20	305 F	Virtue
11	English Literature		3	10:30-11:20	209 F	Virtue
*12	History of English Lit.	2,10,11	3	10:30-11:20	305 F	Barnes
*16	Children's Literature	Ditto	2	9:30-10:20	213 F	Barnes
50	Narration and Description	Ditto	3	8:30- 9:20	305 F	Virtue
160	Elementary Old English	Ditto	3	8:30- 9:20	213 F	Burnham
171	American Literature I	Ditto	3	10:30-11:20	213 F	Nelson
174	Eng. Lit. of the 18th Cent.	Ditto	3	11:30-12:20	205 F	Paden
178	Shakespeare: Intensive Study	Ditto	3	7:30- 8:20	205 F	Hankins
183	Milton and His Contemporaries	2,10,11	3	10:30-11:20	207 F	Ashton
188	The English Novel	Ditto	3	9:30-10:20	305 F	Hoopes
192	Elizabethan Prose and Verse	Ditto	3	9:30-10:20	205 F	Ashton

ENTOMOLOGY:

1	Biology of Insects I		5	7:30-10:20	304 S	Doering
57	Household and Garden Insects		2	11:30-12:20	304 S	Woodruff
162	Biological Survey	1 and one other course in Entomology	3-5	Appt.	Appt.	Beamer
163	Field Entomology	1	3-6	7:30-10:20	301 S	Doering
264	Special Problems	Seniors by perm.	2-6	Appt.	Appt.	Staff

GEOGRAPHY:

3a	Principles of Geography	2 yrs. H.S. Math.	3	8:30- 9:20	208 H	Posey
4	Economic Geography		2	10:30-11:20	208 H	Posey
57	Geography of South America	1 or 3 or 3a	3	9:30-10:20	208 H	Posey

GEOLOGY:

†11	Physical Geology	2 yrs. H.S. Math. (see note)	5	July 26-August 30	Geol. Camp in Colo.	Schoewe
†159	Field Geology	11 (see note)	5	June 11-July 19	Geol. Camp in Colo.	Landes

† Minimum enrollment of ten students required.
Course 11 not open to students who have had course 1.

HISTORY:

3	Modern Europe		5	7:30- 9:20	214 FS	Realey
150	Greek History	5 hrs. Col. Hist.	3	8:30- 9:20	112 FS	Patterson
152	Medieval Institutions and the National State	Ditto	3	9:30-10:20	112 FS	Patterson
161	The British Empire	Ditto	3	9:30-10:20	214 FS	Realey
168	Latin America	Ditto	2	10:30-11:20	112 FS	Patterson
180	The American Colonies and the Revolution	Ditto	3	7:30- 8:20	110 FS	Paullin
181	The United States, 1783-1829	Ditto	3	11:30-12:20	110 FS	Paullin

JOURNALISM:

‡162	Magazine Writing	See catalogue	3	9:30-10:20	107 J	Flint
‡180	Elements of Advertising	Rhetoric II	3	11:30-12:20	107 J	Flint
‡193	History of Amer. Journalism	Ditto	3	10:30-11:20	107 J	Heady

‡Minimum enrollment of eight students required.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
LAW:						
	(Professional credit)	**First Term—June 11 to July 12**				
	Contracts		3	7:30- 9:00 MTWTF	105 G	Davis
	Agency		1	11:0-12:00 MWF	105 G	Tupy
	Insurance		2	7:30- 8:30 MTWTF	106 G	Tupy
		Second Term—July 14 to August 16				
	Contracts		3	7:30- 9:00 MTWTF	105 G	Davis
	Agency		2	11:00-12:00 MTWTF	105 G	Tupy
	Insurance		1	7:30- 8:30 MWF	106 G	Tupy
	Public Service Law		3	9:00-10:30 MTWTF	104 G	Smith
MATHEMATICS						
2a	College Algebra	1½ yrs. H.S. Alg.	3	7:30- 8:20	203 FS	Wheeler
2b	College Algebra	1 yr. H.S. Alg.	5	7:30- 9:20	203 FS	Wheeler
3	Trigonometry	1 or H.S. Geom., 2a or2b, or with 2a or 2b	2	10:30-11:20	217 FS	Smith
152	Advanced Calculus	7	3	7:30- 8:20	219 FS	Babcock
153	Modern Analytical Geometry	7	2	9:30-10:20	217 FS	Smith
MUSIC:						
†6	Harmony II	5	2	7:30- 8:20	131 FS	Cass
†6a	Keyboard Harmony II	Ditto	1	9:30-10:20 M. Th.	30 FS	Cass
†25	Harmony III	6	2	11:30-12:20	37 FS	Cass
†25a	Keyboard Harmony III	6a	1	10:30-11:20 T.F.	28 FS	Cass
*71	History of Music		3	10:30-11:20	32 FS	Hirschler
156	Form and Analysis II	26	2	9:30-10:20	131 FS	Hirschler
287-288	Instrumentation I & II	26	4	11:30-12:20	131 FS	Anderson

† If fewer than eight students enroll in each course, course will be given on fee basis. See catalogue.

* Courses 71 and 72 are not open for credit to students taking 41, 43, 69, 70, and vice versa.

Applied Music

‡Piano	2 yrs. Piano	1-2	Appt.	Appt.	Swarthout, Taylor, Conger
‡Organ	1 yr. Organ and 2 yrs. Piano	1-2	Appt.	Appt.	Anderson, Hirschler
‡Voice	1 yr. Voice and 1 yr. Piano	1-2	Appt.	Appt.	Wilkins, Moncrieff Moore Peabody
‡Violin	2 yrs. Violin	1-2	Appt.	Appt.	Kuersteiner
‡Violoncello	2 yrs. Cello	1-2	Appt.	Appt.	Stuhl

‡ Junior-senior credit is classified as professional credit.

PHILOSOPHY:						
181	Aesthetics		3	9:30-10:20	103 FS	Osborne
184	Ethics of Government	See catalogue	2	11:30-12:20	103 FS	Osborne
PHYSICAL EDUCATION:						
100	Prin. of Community Recreation	3 hrs. Soc.	3	9:30-10:20	204 R	Allen
¶176	Tests and Measurements in Phys. Educ. (Professional cr.)	Phys. Educ. 36	3	9:30-10:20	202 R	Elbel

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
200	The Theory and Practice of Athletic Training (Professional cr.)	10 hrs. Phys. Educ. and one 5 hr. course in Anat. or Physiol.	3	10:30-11:20	204 R	Allen

¶ Either 176 or Education M194 (See Education) will be given depending on demand.

PHYSICS:

3	An Introduction to Physics	1 yr. each H.S. Alg. and H.S. Geom.	5	7:30- 9:20	210 B	Stranathan
7b	General Physics II; for engineering students	7a	5	7:30- 9:20	203 B	Kester
70	Special Problems in Physics	Consent of dept.	1-3	Appt.	Appt.	Staff
156a	Electrical Measurements I (D.C.)	1 yr. Col. Physics for 1 hr.; Integ. Calc. and 152, or with 152 for 2 hrs.	1-2	Appt.	10 B	Kester
156b	Electrical Measurements II (A.C.)	1 hr. 156a; 152 plus Integ. Calc.	1-2	Appt.	10 B	Kester
163	Physics Colloquium	1 yr. Col. Physics; 5 hrs. Jr.-Sr. Phys. or Astron. or 10 hrs. Jr.-Sr. allied-science	1	Appt.	203 B	Staff

Note: One or two of the following will be offered, choice to be made on basis of individual requests:

150	Mechanics	1 yr. Gen. Physics and Calc.	3	Appt.	205 B	Kester
151	Light Theory and Optical Instruments	1 yr. Gen. Physics and Calc.	3	Appt.	205 B	Stranathan
152	Electricity	1 yr. Col. Physics and Integ. Calc.	3	Appt.	201 B	Stranathan

PHYSIOLOGY:

†50	Human Physiology	(See note)	3	11:30-12:20	20 FS	Walling
170	Physiology		5	7:30-11:20	24 FS	Stoland
271	Physiology	170	5	7:30-11:20	20 FS	Woodard

† Not open to students who have credit in course 1. Prerequisite, a high school or college course in chemistry or biology.

POLITICAL SCIENCE:

*10	American Government		3	8:30- 9:20	104 FS	Maddox
110	The American Constitution	6 hrs. Soc. Sci. incl. Amer. Hist. or Amer. Govt. or equiv. teaching exp. in Civics	2	11:30-12:20	104 FS	Maddox
135	Current American Foreign Policy	10 or 1 course in Amer. Hist.	2	10:30-11:20	104 FS	Chubb
152	National Administration	10	2	8:30- 9:20	322 FS	Chubb
153	The Politics of Democracy	10	3	9:30-10:20	104 FS	Gibson
164	International Relations	1 or 10	3	7:30- 8:20	104 FS	Chubb

PSYCHOLOGY:

*1	General Psychology		5			Morrison
	Lecture			7:30- 8:20	9 FS	
	Laboratory			8:30-10:20	9 FS	
*1a	General Psychology		3	7:30- 8:20	9 FS	Morrison
*1b	General Psychology Lab.	1a	2	8:30-10:20	9 FS	Morrison
151	The Normal and Delinquent Child	3 hrs. Gen. Psych.	3	8:30- 9:20	5 FS	Sarvis
154	Abnormal Psychology	Ditto	3	10:30-11:20	5 FS	McCord
158	Psych. of Salesmanship and Advertising (Professional cr.)	Ditto	3	9:30-10:20	5 FS	Sarvis
159	Psychology of Learning	Ditto	3	7:30- 8:20	5 FS	McCord
165	Psychological Clinic I	152 & consent instr.	2-3	Appt.	Appt.	Sarvis
166	Psychological Clinic II	165 & consent instr.	2-3	Appt.	Appt.	Sarvis

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
168	Advanced Psychology (Reading)	8 hrs. Psych. and consent of dept.	2-3	Appt.	Appt.	Staff
169	Advanced Psychology (Exper.)	11 hrs. Psych. and consent of dept.	2-5	Appt.	Appt.	Staff
	ROMANCE LANGUAGES AND LITERATURE:					
	Spanish					
1	Elementary Spanish		5	7:30- 9:20	119 FS	Elliott
163	Nineteenth Century Drama	5	3	9:30-10:20	107 FS	Shoemaker
	SOCIOLOGY:					
2	Social Pathology	1 or 50	2	8:30- 9:20	208 FS	Elliott
50	Elements of Sociology		3	9:30-10:20	208 FS	Smith
152	Rural Sociology	1 or 50	2	7:30- 8:20	208 FS	Smith
161	Contemporary Civilization in the United States	Ditto	3	11:30-12:20	208 FS	Eldridge
169	Criminology	2	3	10:30-11:20	216 FS	Elliott
182	Personality Problems and Social Relations	1 or 50	2	9:30-10:20	216 FS	Eldridge
185	Social Conflict	Ditto	2	8:30- 9:20	216 FS	Gibson
	SPANISH:					
	(See Romance Languages and Literature)					
	SPEECH AND DRAMATIC ART:					
1	Fundamentals of Speech		2	8:30- 9:20	103 G	Anderson
1	Fundamentals of Speech		2	9:30-10:20	103 G	Anderson
*2	Reading and Interpretation 1	1	2	10:30-11:20	103 G	Anderson
*11	Fundamentals of Play Production	1	3	9:30-10:20	3 G	Dixon
150	Speech Correction	1 and consent instr.	2	11:30-12:20	103 G	Anderson
154	Play Directing	11	3	8:30- 9:20	3 G	Dixon
	ZOOLOGY:					
50	General Zoology	Not open to students who have had 1.	5			Lane
	Lecture			7:30- 8:20	206 S	Larson
	Laboratory			8:30-10:20	201 S	
56	Animals of the Past		2	11:30-12:20	13 DM	Lane
	Note: One of the next two will be offered, choice to be made on basis of demand.					
†3	Comparative Anatomy	1	5			Taylor
	Lecture			9:30-10:20	101 S	
	Laboratory			7:30- 9:20	220 S	
†103	Vertebrate Morphology	10 hrs. biology incl. Zoology 1	5			Taylor
	Lecture			9:30-10:20	101 S	
	Laboratory			7:30- 9:20	220 S	
159	Animal Distribution	10 hrs. Zoology	2	10:30-11:20	101 S	Taylor

† Students cannot receive College credit on both 3 and 103.

SCHOOL OF BUSINESS

FRANK T. STOCKTON, Dean, 114 Frank Strong Hall

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
1	Introductory Economics		3	9:30-10:20	212 FS	Seelye
*5	Price and Distribution		3	8:30- 9:20	210 FS	Ise
9	Accounting I	12 hrs. Col. cr.	3	10:30-11:20	210 FS	Shannon

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
80	Marketing	Econ. 5 to precede or accompany	3	8:30- 9:20	212 FS	Seelye
110	Valuation Accounting	10	3	7:30- 8:20	210 FS	Shannon
140	Land Economics		2	11:30-12:20	210 FS	Ise
161	Public Finance	Econ. 5 to precede or accompany	3	9:30-10:20	204 FS	Ise
186	Credit Management	8 hrs. Econ.	2	8:30- 9:20	204 FS	Roark
187	Sales Promotion	Marketing	2	7:30- 8:20	212 FS	Seelye
194	Business Law I		3	10:30-11:20	212 FS	Roark
195	Business Law II		3	11:30-12:20	212 FS	Roark
198	War Economy Problems	1 or equivalent	2	10:30-11:20	204 FS	Stockton

SCHOOL OF EDUCATION

AND THE GRADUATE DEPARTMENT OF EDUCATION

RAYMOND A. SCHWEGLER, Dean, 103 Fraser Hall

1. **College Juniors and Seniors** who wish to secure the three-year Renewable-for-Life Certificate will begin with P50 and A50; then elect any two of the following three courses: H64, S52 and E50. This will constitute the Fundamentals group. After completing the Fundamentals group, they will elect three additional hours in Education and will take the Methods course in their major subject. The State Board now requires Supervised Teaching except in the cases of those persons who have had three or more years of satisfactory teaching experience. **College students are warned to elect only those Education Courses for which the College gives credit.**

2. **Students in the School of Education** will begin their professional work with P50, A50 and four hours selected from H64, S52, and E50, unless they have advanced Education credit from other schools. In any case, they will consult the Education Adviser before making elections. For further details students will consult pages 78-84 of the Part I of the University catalogue.

3. **Graduate students with a major in Education** will in every case arrange their course with the representative of the department of Education.

Note: All courses numbered from 300 to 399 inclusive carry credit in the Graduate School only.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
EDUCATION:						
	Administration					
A 50	Intro. to School Admin.		2	7:30- 8:20	115 F	Althaus
A158	Visual Educ. in Elementary and Secondary Schools	15 hrs. Educ.	2	11:30-12:20	306 F	Montgomery
A159-273	Admin. of Smaller School and City School Administration	Fund. Group	3	8:30- 9:20	314 F	Jacobs
A250	Org. and Admin. of Elementary Schools	15 hrs. Educ.	3	8:30- 9:20	112 F	Ullrich
A304	Seminar in Educational Admin.		0	Appt.	115 F	Staff
A351	Adult Education, Aims, Methods and Organization	15 hrs. Educ.	2	9:30-10:20	210 F	Russell
A371	Admin. of the Curriculum	15 hrs. Educ.	2	10:30-11:20	312 F	Althaus
A376	The Business Admin. of City Schools	A273 and 15 hrs. Educ.	3	8:30- 9:20	115 F	Twente
A378	Public School Relations	15 hrs. Educ.	2	9:30-10:20	112 F	Ullrich
A379	The Establishment and Operation of a Junior College	15 hrs. Educ.	3	7:30- 8:20	112 F	Chandler
A399	Research in Educ. Admin.	E272, A273, or A274	2-8	Appt.	120 F	Staff
	Secondary Education					
B260	Principles of Secondary Educ.	Fund. Group	3	7:30- 8:20	206 F	Brooks
B261	Admin. of Junior and Senior High Schools	Fund. Group	3	10:30-11:20	206 F	Brooks
B264	The Administration of Extra-curricular Activities	Fund. Group	2	11:30-12:20	110 F	Jacobs
B377	Problems of Secondary School Practice	15 hrs. Educ.	2	8:30- 9:20	206 F	Brooks

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	Measurements, Experimentation, and Supervision					
E50	Introduction to Educational Measurement		2	9:30-10:20	312 F	Althaus
E166	Statistical Methods	Fund. Group	3	10:30-11:20	112 F	Ulmer
E310	Methods of Research	15 hrs. Educ.	2	10:30-11:20	110 F	OBrien
E352	Educational Measurements	15 hrs. Educ.	3	11:30-12:20	115 F	OBrien
E370	School Surveys	15 hrs. Educ.	2	10:30-11:20	210 F	Twente
E377	Problems of Elementary School Supervision	15 hrs. Educ.	2	7:30- 8:20	314 F	Jacobs
E399	Research in Educational Measurement ond Supervision	E252 and E272	2-8	Appt.	120 F	Staff
	History of Education					
H64	A Survey of American Educ.		2	8:30- 9:20	210 F	Ulmer
	Theory and Practice of Teaching					
‡M10	Elementary School Art Methods		3	7:30- 8:20	110 F	DeGraw
¶M21	Elem. School Music Methods		3	11:30-12:20	37 FS	Barnhart
¶M62	Pub. Sch. Music Methods for Intermediate Grades		2	8:30- 9:20	37 FS	Barnhart
64	The Teaching of Music in Senior High School		2	9:30-10:20	37 FS	Gaston
†M194	Content and Methods and Physical Education	Fund. Group and Phys Educ. 36	3	8:30- 9:20	202 R	Elbel
M269	Methods of Teaching in the Elementary Grades	15 hrs. Educ.	3	11:30-12:20	112 F	Ullrich
M291	The Teaching of Social Studies	Fund. Group; Social Studies major	3	11:30-12:20	210 F	Litchen
M340	Modern Teaching Procedures	15 hrs. Educ.	3	11:30-12:20	206 F	Bayles
M377	Problems in the Theory and Practice of Teaching	M240-M340 or consent of instructor	2	9:30-10:20	306 F	Bayles
M399	Research in the Theory and Practice of Teaching	See catalogue	2-8	Appt.	107 F	Staff
	Educational Psychology					
P35	Essentials of Reading		3	10:30-11:20	Oread	Mitchell
P50	Educational Psychology	Gen. Psych. incl. lab.	3	10:30-11:20	306 F	Van Swearingen
P268	Psychology of Reading	Fund. Group	2	8:30- 9:20	Oread	Mitchell
P281	Reading and Study Laboratory	P268-P368	2	1:30- 2:30	Oread	Mitchell
P300	Seminar in Educational Psych.	Accompanies P399	0	Appt.	115 F	Staff
P354	Educational Clinic	P367; consent of instructor	3-5	1:30- 4:20	16 F	Nash
P355	Mental Measurements of School Children	15 hrs. Educ.	3	8:30- 9:20	312 F	Salyer
P367	Adv. Educational Psychology	15 hrs. Educ.	3	9:30-10:20	206 F	Nash
P371	The Nontypical Child	15 hrs. Educ.	3	10:30-11:20	310 F	Salyer
P399	Research in Educational Psychology and Guidance	Two from E252, P271, P255, P354	2-8	Appt.	18 F	Staff
	Educational Sociology					
S292	An Introduction to the Study of the Curriculum	Fund. Group	3	7:30- 8:20	210 F	Russell
S294	Construction of the Secondary School Curriculum	Fund. Group and S292	3	9:30-10:20	110 F	Spain
S393	Construction of the Elementary School Curriculum	Fund. Group and S292	3	11:30-12:20	312 F	Spain
S399	Research in Curriculum Construction	S292 and S293 or S294	2-8	Appt.	119 F	Staff
	Philosophy of Education					
T268	The Principles of Education	Fund. Group	2	9:30-10:20	115 F	Schwegler

† Either M194 or Physical Education 176 will be given depending on demand. (See Phys. Educ.)

‡ Minimum enrollment of ten students required.

¶ Minimum enrollment of eight students required.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	Vocational Education					
V156	Vocational Education	Fund. Group	2	8:30- 9:20	110 F	OBrien
	PHYSICAL EDUCATION:					
†39	Elementary School Playground Activities		3	8:30- 9:20	204 R	Sams
100	Prin. of Community Recreation	3 hrs. Soc.	3	9:30-10:20	204 R	Allen
‡176	Tests and Measurements in Physical Education	Phys. Educ. 36	3	9:30-10:20	202 R	Elbel
200	The Theory and Practice of Athletic Training	10 hrs. Phys. Educ. and one 5 hr. course in Anat. or Physiol.	3	10:30-11:20	204 R	Allen
300	Special Problems in Physical Education		2-4	Appt.	107 R	Elbel

† Minimum of ten students required.

‡ Either 176 or Education M194 (See Education) will be given depending on demand.

SCHOOL OF ENGINEERING

J. J. JAKOSKY, Dean, 113 Marvin Hall

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	Applied Mechanics					
1	Applied Mechanics—Statics	Math. 2a or 2b, 3, and Physics 7a	2	10:30-11:20	110 M	Jones
50	Applied Mechanics—Dynamics	A.M. 1 and Math. 7 or 7E	3	9:30-10:20	110 M	Jones
51	Strength of Materials	A.M. 1 and Math. 7 or 7E	4	7:30- 9:20	Mech. Lab.	Tait
	Civil Engineering					
11	Elementary Surveying		3	1:30- 5:20	11 M	Jones
	Mechanical Engineering					
4	Steam Machinery	H.S. Chem.	2	9:30-10:20	Mech. Lab	Tait
45	Ground School Course		3	7:30	115 M	Henry
60	Advanced Ground School Course	M.E. 45 & Jr. Standing	4	Appt.	116 M	Hay
	Note: One of the following will be offered, choice to be made on basis of demand:					
150	Machine Design	M.E. 3 and A.M. 51	5	9:30-12:20	Mech. Lab	Tait
153	Machine Design	A.M. 51	3	9:30-12:20	Mech. Lab	Tait

Note: Only four of the regular courses listed above (A.M. 1, A.M. 50, A.M. 51, C.E. 11, M.E. 4, M.E. 150, or M.E. 153) will be offered depending on student interest. The two ground school courses are dependent upon continued appropriations by the Civil Aeronautics Authority of the United States Government.

SCHOOL OF FINE ARTS

DONALD M. SWARTHOUT, Dean, 126 Frank Strong Hall

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	DESIGN:					
13	Design I		3	8:30-12:20 TT	316 FS	Whitney
14	Design II	13	3	8:30-12:20 TT	316 FS	Whitney

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
33	Design III	14	3	9:30-12:20 MWF	316 FS	Whitney
34	Design IV	33	3	9:30-12:20 MWF	316 FS	Whitney
163	Design V	34	3	9:30-12:20 MWF	316 FS	Whitney
164	Design VI	163	3	9:30-12:20 MWF	316 FS	Whitney
193	Design VII	164	3	9:30-12:20 MWF	316 FS	Whitney
194	Design VIII	193	3	9:30-12:20 MWF	316 FS	Whitney
HANDCRAFTS:						
21	General Handcrafts II	2	1-2	7:30- 9:20 MWF	318 FS	Whitney, Bate
151	General Handcrafts IV	22	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
152	General Handcrafts V	151	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
181	Handcrafts VI		2	7:30- 9:20 MWF	318 FS	Whitney, Bate
182	Handcrafts VII	181	2	7:30- 9:20 MWF	318 FS	Whitney, Bate
CLAY MODELING:						
29	Pottery I		1-2	7:30-10:20 TT	308 FS	Whitney, Bate
30	Pottery II	29	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
†69	Sculpture I	30	2	10:30-12:20 TT	Spooner-Thayer	Frazier
†70	Sculpture II	69	2	10:30-12:20 TT	Spooner-Thayer	Frazier
†97	Sculpture III	70	2	10:30-12:20 TT	Spooner-Thayer	Frazier
†98	Sculpture IV	97	2	10:30-12:20 TT	Spooner-Thayer	Frazier
159	Pottery III	30	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
160	Pottery IV	159	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
189	Pottery V	160	1-2	7:30-10:20 TT	308 FS	Whitney, Bate
190	Pottery VI	189	1-2	7:30-10:20 TT	308 FS	Whitney, Bate

† Total enrollment in the four courses is limited to fifteen students. A minimum enrollment of eight students is required.

DRAWING AND PAINTING:

Note: The following courses in Drawing and Painting will be offered on a private lesson basis. In addition to the regular incidental and model fee, the student is to pay a private lesson fee according to the following schedule: 1 hr. Credit—$10.00; 2 hrs. credit—$15.00; 3-4 hrs. credit—$20.00; 5-6 hrs. credit—$25.00; 7-8 hrs. credit—$30.00.

	Drawing:					
1- 2	Antique I & II		1-3	Appt.	Appt.	Silks
3- 4	Constructive I & II		1-2	Appt.	Appt.	Silks
7- 8	Composition I & II		2	Appt.	Appt.	Silks
	Painting:					
33-34	Still Life I & II		1-3	Appt.	Appt.	Silks
55-56	Advanced Composition I & II	35 and 36	1-2	Appt.	Appt.	Silks

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
MUSIC:						
	For courses in Methods of Teaching Music in the primary and intermediate grades, and in junior and senior high schools, see Education.					
	Band and Orchestra					
	Summer Session Band		1	Appt.	Hoch Aud.	Wiley
	Summer Session Orchestra		1	Appt.	Hoch Aud.	Lawson
	Chorus					
	A Cappella Choir		½	4:30- 5:20	131 FS	Swarthout
165	Choral Repertoire and Adv.					
	Conducting	1 yr. of conducting	2	9:30-10:20	131 FS	Swarthout
	Ensemble					
29	String Ensemble I		1	Appt.	134 FS	Kuersteiner
30	String Ensemble II	29	1	Appt.	134 FS	Kuersteiner
59	String Ensemble III		1	Appt.	134 FS	Kuersteiner
60	String Ensemble IV	59	1	Appt.	134 FS	Kuersteiner
	History of Music					
71	History of Music I		3	10:30-11:20	32 FS	Hirschler
	Musical Theory					
†6	Harmony II	Harmony 5	2	7:30- 8:20	131 FS	Cass
†6a	Keyboard Harmony II	Ditto	1	8:30- 9:20 M.Th.	30 FS	Cass
†25	Harmony III	Harmony 6	2	7:30- 8:20	37 FS	Cass
†25a	Keyboard Harmony III	Ditto	1	10:30-11:20 T.F.	28 FS	Cass
156	Form and Analysis II	155	2	9:30-10:20	32 FS	Hirschler
287	Instrumentation I	26	2	11:30-12:20	131 FS	Anderson
288	Instrumentation II	287	2	11:30-12:20	131 FS	Anderson
	Public School Music					
†15	Orchestral Instruments—Strings		2	Appt.	Appt.	Stuhl
†16	Orchestral and Band Instruments —Woodwind		2	9:30-10:20	37 FS	Wiley
†36	Orchestral and Band Instruments —Brass and Percussion		2	10:30-11:20	131 FS	Wiley
169	Band and Orchestra Methods and Administration		2	1:30- 2:20	131 FS	Wiley
	Sight Singing and Ear Training					
†2	Sight Singing and Ear Training II		1	8:30- 9:20	32 FS	Cass
†21	Sight Singing and Ear Training III		1	11:30-12:20	28 FS	Stuhl
	Applied Music					
	Courses 11, 12, 31, 32, 161, 162, 291, 292, in:					
	Organ		1-3	Appt.	Appt.	Anderson Hirschler
	Piano		1-3	Appt.	Appt.	Swarthout, Taylor, Conger
	Voice		1-2	Appt.	Appt.	Wilkins, Moncrieff Moore Peabody

† If fewer than eight persons enroll in each course, course will be given on private fee basis. See catalogue.

Courses 11, 12, 31, 32, 65, 66, 91, 92, 161, 162, 291, 292, in:					
Violin	1-3	Appt.	Appt.	Kuersteiner	
Courses in Violoncello	1-3	Appt.	Appt.	Stuhl	

SCHOOL OF LAW

FREDERICK J. MOREAU. Dean, 108 Green Hall

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	First Term—June 11 to July 12					
	†Contracts		3	7:30- 9:00 MTWTF	105 G	Davis
	†Agency		1	11:00-12:00 MWF	105 G	Tupy
	†Insurance		2	7:30- 8:30 MTWTF	106 G	Tupy
	Administrative Law		3	9:00-10:30 MTWTF	104 G	Smith
	†Creditor's Rights		2	11:00-12:00 MTWTF	106 G	Moreau
	Second Term—July 14 to August 16					
	†Contracts		3	7:30- 9:00 MTWTF	105 G	Davis
	†Agency		2	11:00-12:00 MTWTF	105 G	Tupy
	†Insurance		1	7:30- 8:30 MWF	106 G	Tupy
	Public Service Law		3	9:00-10:30 MTWTF	104 G	Smith
	†Creditor's Rights		1	11:00-12:00 MWF	106 G	Moreau

† Courses continue through both terms.

SCHOOL OF MEDICINE

DR. O. O. STOLAND, Secretary of the Medical School. 10 Frank Strong Hall (Lawrence)

Except by special arrangement, only students who are eligible for admission to the School of Medicine may enroll in Medical courses. Enrollment in the 8 weeks Summer Session is equivalent to one-half semester time credit in the School of Medicine, except as noted below.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
ANATOMY:						
	Note: The following four courses are to last five weeks each:					
	First Term—June 11 to July 12					
161	The Upper Extremity	Entrance requirements to Med. Sch.	2	8:00-12:00 1:30- 4:30	10 Anat	Tracy
163	The Abdomen and Thorax	Ditto	3	8:00-12:00 1:30- 4:30	10 Anat	Tracy
	Second Term—July 14 to August 16					
162	The Lower Extremity	Ditto	2	8:00-12:00 1:30- 4:30	10 Anat	Latimer
164	The Head and Neck	Ditto	3	8:00-12:00 1:30- 4:30	10 Anat	Latimer
	Note: The following courses are to last eight weeks:					
†187	Histology and Splanchnology		5	8:00-11:00	8 Anat	Fletcher
†189	Neurology	187	3	1:30- 4:30	8 Anat	Fletcher
	† Contingent upon an enrollment of ten students.					
BACTERIOLOGY:						
150M	Pathogenic Bacteriology	5 hrs. Col. Chem.	5	7:30-11:20	506 S	Sherwood
154	Diagnostic Bacteriology	150 or 150M	5	7:30-11:20	511 S	Downs
261	Special Problems in Bact.	5 or more hrs. of Bacteriology at discretion of dept.	1-8	Appt.	Appt.	Staff
BIOCHEMISTRY:						
150	Biological Chemistry	Chem. 161	5			
	Lectures			7:30- 9:20 MTWTF	205 BCL	Nelson Garber
	Laboratory			9:30-11:20 TT	103 BCL	Garber

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
151	Biological Chemistry (Quantitative Methods)	150 and Quan. Anal.	3	9:30-11:20 MTWTF 1:30- 3:30 MF	103 BCL	Nelson, Garber
PHYSIOLOGY:						
170	Physiology		5	7:30-11:20	24 FS	Stoland
271	Physiology		5	7:30-11:20	20 FS	Woodard

SCHOOL OF MEDICINE at Kansas City

DR. H. R. WAHL, Dean of the School of Medicine, Administration Building, University of Kansas Hospitals, Kansas City, Kan.

The session runs for twelve weeks. The maximum credit earned during the sesion is twelve hours.

No.	Subject	Prerequisites	Credit	Time	Room-Bldg.	Instructor
	Medicine					
72	Physical Diagnosis		2	Appt.	Kans. City	Hashinger
82	Physical Diagnosis		3	Appt.	Kans. City	Hashinger, Delp
92	Medical Clinical Course		3	Appt.	Kans. City	Major
283	Clinical Pathology		2	Appt.	Kans. City	Weber
	Neurology					
92	Psychiatry—Practical Work		1	Appt.	Kans. City	Gibson
	Obstetrics					
71	Physiological Obstetrics		2	Appt.	Kans. City	Calkins
81c	Clinics in Obstetrics		0	Appt.	Kans. City	Calkins
	Pathology					
271	General Pathology		8	Appt.	Kans. City	Walker
282	Special Pathology—Autopsy Technique		2	App.t	Kans. City	Walker
	Pediatrics					
92	Pediatrics		1	Appt.	Kans. City	Neff
	(a) Ward Rounds and Clerkship					
	(b) Dispensary					
	Pharmacology					
272	Pharmacodynamics and Materia Medica	Physiol. 170 & 271	6	Appt.	Kans. City	Isenberger
	Surgery					
82	Clinical Surgery		1	Appt.	Kans. City	Orr
92	Surgical Clinical Course		4	Appt.	Kans. City	Orr

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CATALOGUE ISSUE

1941 Summer Session

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OF THE

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SUMMER SESSION COURSES
1941



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CALENDAR

June 9, Monday—Commencement exercises.
June 10-11, Tuesday and Wednesday—Registration, Frank Strong Hall.
June 11, Wednesday—Enrollment, Robinson Gymnasium.
June 12, Thursday—Beginning of classwork.
June 14, Saturday—Last day for enrollment for full credit.
July 12, Saturday—Close of first term in Schools of Law and Medicine.
July 14, Monday—Opening of second term in Schools of Law and Medicine.
August 6, Wednesday—Close of summer session, except Schools of Law and Medicine.
August 16, Saturday—Close of second term in Schools of Law and Medicine.

A Saturday session will be held on June 14.

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ALTHAUS, CARL B., Ph. D., Associate Professor of Education.
BABCOCK, WEALTHY, Ph. D., Associate Professor of Mathematics.
BARNHART, MABEL, Associate Professor of Public School Music.
BAYLES, ERNEST E., Ph. D., Associate Professor of Education.
CHANDLER, H. E., A. M., Associate Professor of Education.
CHUBB, H. B., A. M., Associate Professor of Political Science.
CONGER, ALLIE MERLE, Associate Professor of Piano.
DOERING, KATHLEEN, Ph. D., Associate Professor of Entomology.
ELBEL, E. R., Ph. D., Associate Professor of Physical Education.
ELLIOTT, MABEL A., Ph. D., Associate Professor of Sociology.
HANKINS, JOHN E., Ph. D., Associate Professor of English.
MOORE, MERIBAH, Associate Professor of Voice.
ORCUTT, RUTH, Mus. M., Associate Professor of Piano.
PEABODY, IRENE, Mus. B., Associate Professor of Voice.
RICE, M. E., M. S., Associate Professor of Physics.
RUSSELL, FLOYD O., Ph. D. ,Associate Professor of Education.
SCHOEWE, W. H., Ph. D., Associate Professor of Geology.
SHANNON, WM. H., M. B. A., Associate Professor of Economics.
SMITH, MAPHEUS, Ph. D., Associate Professor of Sociology.
STORER, N. WYMAN, Ph. D., Associate Professor of Astronomy.
TAIT, R. S., M. E., Associate Professor of Mechanical Engineering.
WHEELER, J. J., A. M., Associate Professor of Mathematics and University Marshal.
WILEY, RUSSELL L., B. M., Associate Professor of Brass and Woodwind Instruments.
WOODRUFF, LAURENCE, Ph. D., Associate Professor of Entomology.

ASSISTANT PROFESSORS

ANDERSON, MARGARET, A. M., Assistant Professor of Speech and Dramatic Art.
BARNES, NELLIE, A. M., Assistant Professor of English.
ELLIOTT, MAUDE, A. M., Assistant Professor of Spanish.
GARBER, PAULINE, M. D., Assistant Professor of Biochemistry.
GASTON, E. THAYER, Ph. D., Assistant Professor of Education and Music.

HOOPES, HELEN R., A. M., Assistant Professor of English.
MADDOX, W. R., A. M., Assistant Professor of Political Science.
MAYBERRY, M. W., Ph. D., Assistant Professor of Botany.
MCCORD, FLETCHER, Ph. D., Assistant Professor of Psychology.
PADEN, W. D., Ph. D., Assistant Professor of English.
ROARK, OLEN B., LL. B., Assistant Professor of Economics.
SARVIS, BYRON, Ph. D., Assistant Professor of Psychology.
STUHL, RAYMOND, Assistant Professor of Violin and Orchestra.
ULMER, GILBERT, Ph. D., Assistant Professor of Mathematics and Education.
VIRTUE, JOHN B., Ph. D., Assistant Professor of English.
WALKER, GEORGE, M. D., Assistant Professor of Pathology.
WALLING, LALIA V., A. M., Assistant Professor of Physiology.
WEBER, C. J., Ph. D., Assistant Professor of Research Medicine.
WHITNEY, MARJORIE, B. Des., Assistant Professor of Design.

ASSOCIATES

DELP, MAHLON, M. D., Associate in Medicine.

INSTRUCTORS

CASS, JEANNETTE, M. M., Instructor in Organ and Theory.
DEGRAW, EVELYN A., B. F. A., Instructor in Education.
DIXON, DONALD, A. B., Instructor in Speech.
DURELL, DONALD, B. S., Instructor in Botany.
FRAZIER, BERNARD, B. Des., Instructor in Architecture and Design.
GIBSON, HILDEN, A. B., Instructor in Political Science and Sociology.
HEADY, R. A., A. B., Instructor in Journalism.
HENRY, HOWARD, B. S., Instructor in Mechanical Engineering.
JENKINS, HAROLD, A. M., Instructor in English.
LITCHEN, RUTH E., A. M., Instructor in Education.
MCNAIR, RUTH K., A. M., Instructor in Zoölogy.
PAULLIN, W. T., Ph. D., Instructor in History.

ASSISTANT INSTRUCTORS

WAID, ALBERTA, B. F. A., Assistant Instructor in Design.

THE SUMMER SESSION OF 1941

UNIVERSITY OF KANSAS

GENERAL STATEMENT

The thirty-ninth Summer Session of the University of Kansas will open June 11, 1941. The session will close August 6, except in the Schools of Law and Medicine which close their second term August 16.

The University maintains its Summer Session as an extension of its regular scholastic year. All work is offered by thoroughly competent instructors, the standards are identical with those obtaining during the regular academic year, and every facility of the University is available to students enrolling for this session.

The curriculum includes over two hundred courses offered by the following schools: Graduate School, College of Liberal Arts and Sciences, Schools of Education, Law, Medicine, Engineering and Architecture, Fine Arts, and Business.

PURPOSE

The Summer Session is particularly intended for the following groups:

1. Persons who are doing advanced study for the purpose of securing graduate degrees. For such students an extensive array of graduate courses in approximately thirty departments of the University is provided.

2. For students who wish to secure professional degrees in Business, Education, Engineering, Fine Arts, Law and Medicine, with the minimum expenditure of time. Such persons will find liberal facilities for the pursuit of their goal.

3. Students in the College who wish to complete their regular undergraduate work in less than four years, or who wish to meet special requirements, or eliminate conditions, will find special provision made to meet their needs.

4. Mature persons engaged in various walks of life who wish to spend a part or the whole of their summer vacation in special studies for the purpose of self-improvement, or mature persons who have definite objectives, are invited to avail themselves of any of the facilities offered by the Summer Session for which their previous training properly qualifies them.

5. High-school graduates who wish to begin their college work early in order to complete the course in less than four years may enter the University at once, and by judicious planning and without special strain complete the course in three years.

6. Superintendents of schools, high-school principals, teachers in high schools and junior colleges, supervisors of special subjects, college instructors, and workers in all branches of education will find excellent opportunities for study which will give increased efficiency in teaching, supervision, and administration.

It is the purpose of the Summer Session to make the facilities of the University as widely available as the requirements of a high standard of scholarship and effective teaching permit, and for that reason correspondence is invited from any persons who believe that any part of the program herewith presented might be of value to them.

ADMISSION

The rules governing admission to the Summer Session are the same as those of the regular session. Any graduate of an accredited high school or any person twenty-one years of age or over may enroll in any department in which he is prepared to carry work. Admission of special students to any class requires the consent of the instructor.

Fees are payable within one week after the date set for the close of enrollment.

CREDITS

The maximum amount of credit obtained during the term is eight hours, but students whose previous records are not of sufficiently high standard will be refused the maximum enrollment.

ADVANCED STANDING

Summer Session students entering the University for the first time, who have credit for work done elsewhere which they wish to transfer for advanced standing toward a degree at the University, should have complete official transcripts of records, including a letter of honorable dismissal from the institution last attended, together with a certificate of high-school credits, sent to the secretary of the Advanced Standing Committee **at least thirty days before the opening of the session, in order that proper evaluations of their credits may be made and their standing determined in time for matriculation.** Careful observance of this regulation will save valuable time.

SPECIAL STUDENTS

Summer Session students who do not plan to apply for a degree from this University, and who wish to do summer work with other objects in view, will, upon declaration of that fact, be admitted as unclassified or special Summer Session students in accordance with the rules and regulations governing the admission of special students. Students now enrolled in other institutions who wish to enroll in the Summer Session of this University must present a statement from the dean or president of the institution last attended that they are in good standing. **Such students may not subsequently apply Summer Session credits toward a degree except by special action of the faculty concerned.**

ELEMENTARY SCHOOL CERTIFICATE

The State Board of Education, in the summer of 1937, issued regulations for elementary school certificates based on the completion of a sixty-hour curriculum.

It is planned to offer a part of the courses required by the state board for this certificate during the Summer Session of 1941. Students desiring these courses, if not previously matriculated in the University, will be registered as special students in the School of Education. Credit so earned will be certified to the State Board of Education to meet certification requirements and may later be transferred to the specific school or college in which the student may finally elect to complete his college course. A considerable part of the work may be applied toward degrees at the University, depending upon the requirements of the particular school in which the student elects to complete his work.

As stated in the preceding paragraph, application of such credit toward a degree requires special action of the faculty concerned.

All persons interested in these proposed special courses are invited to ask for a copy of the special circular issued by the Summer Session concerning this problem. Address the Director of the Summer Session, University of Kansas, Lawrence.

GRADUATE CREDITS

Graduate students may receive a maximum credit of eight hours during the Summer Session. This means that it is possible to satisfy in four summers the minimum requirements of thirty hours' graduate work in residence for the master's degree. However, the candidate for the master's degree is strongly advised to spend at least one semester of a regular school year in residence at the University.

Under the regulations of the Graduate Faculty credit in graduate courses completed more than six years before the general examination for the master's degree, must be validated by special examination if used to meet part of the requirements for the degree.

All courses in order to be accepted towards a higher degree must be approved in advance by the dean of the Graduate School and by the representa-

tive of the department in which the student elects to do his major work. Therefore, students desiring graduate credit for summer work must enroll with the dean of the Graduate School, and graduates of institutions other than the University of Kansas must present a complete official transcript of their college records to the dean of the Graduate School. **It is highly important that this transcript be sent to the dean one month or more in advance of enrollment.**

Students who neglect to furnish evidence that they are eligible for admission to the Graduate School will be enrolled only provisionally, and graduate credit for part or all of their work will be forfeited if it appears subsequently that they are not eligible for unconditional admission.

EXPENSES

FEES *

MATRICULATION FEE. Every person when he first presents himself for admission to the University is required to pay a matriculation fee. This fee is payable only once. For residents of Kansas the fee is $10, for nonresidents it is $20.

DEFINITION OF RESIDENCE. The residence of persons entering any of the state institutions of higher education is determined by an act of the legislature (L. 1938, sp. sess., ch. 70), which reads as follows:

"Persons entering the state educational institutions who if adults have not been, or if minors, whose parents have not been residents of the state of Kansas for six months prior to matriculation in the state educational institutions, are nonresidents for the purpose of the payment of matriculation and incidental fees: *Provided further,* That no person shall be deemed to have gained a residence in this state for the aforesaid purpose while or during the elapse of time attending such institution as a student, nor while a student of any seminary of learning, unless, in the case of a minor, his parents shall have become actual residents in good faith of the state of Kansas during such period, or unless, in the case of a minor, he has lived with or been supported by his parents or either of them for three years or more prior to enrollment and during said years has been a resident in good faith of the state of Kansas."

INCIDENTAL FEE. There is required by law the following incidental fee:

	Kansas Residents	*Non-residents*
Graduate School, College of Liberal Arts and Sciences, Schools of Business, Education, Engineering and Architecture, Fine Arts†	$20.00	$50.00
School of Law (each term)	12.50	35.00
School of Medicine: At Lawrence:		
Eight weeks' term	20.00	50.00
Five weeks' terms (each term)	12.50	35.00
School of Medicine: At Kansas City:		
Nonclinical course, up to 8 hours	40.00	100.00
Nonclinical, above 8 hours, per hour	5.00	12.50
Junior-senior clinical, per hour	10.00	25.00

PART-TIME FEES. Provision is made for persons to take part-time work at an hourly rate, as follows:

Limited Enrollment Fee: A student who, for good reason, is forced to reduce his scholastic load may, with permission of his dean, take a limited enrollment of not to exceed three hours, with or without credit, for incidental fees as follows: At Lawrence, $2.50 an hour if he is a resident of Kansas, $7.50 an hour if he is a nonresident; at Kansas City, $5 an hour if he is a resident of Kansas, $12.50 an hour if he is a nonresident.

Professional Fee: A person of mature age who is already engaged in a profession or life work may enroll in not to exceed three hours, with or without

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* All fees are subject to change without notice.

† Private lessons in music are additional; see "Music."

credit, for incidental fees as follows: At Lawrence, $2.50 an hour if he is a resident of Kansas, $7.50 an hour if he is a nonresident; at Kansas City, $5 an hour if he is a resident of Kansas, $12.50 an hour if he is a nonresident.

Graduate Field Rate: A person doing field work for credit in the Graduate School may pay incidental fees as follows: $2.50 an hour, up to a maximum of $20, if he is a resident of Kansas, $7.50 an hour, up to a maximum of $50, if he is a nonresident.

Staff Fee: A member of the University staff regularly engaged for at least one-half of full-time service may pay incidental fees as follows: At Lawrence, $2.50 an hour up to a maximum of the regular incidental fee of the school in which he is enrolled; at Kansas City, $5 an hour, up to a maximum of the regular incidental fee.

ACTIVITY FEE. Each student enrolled in resident courses pays an activity fee of $1.50. This fee provides for the operation of the Memorial Union building, the Summer Session *Kansan,* the recreational facilities, the summer session lectures and concerts, the campus sing, and other activities. Admission to these activities is free upon presentation of the activity ticket.

HEALTH FEE. A health fee of $2.50 is charged each student, except a person paying the professional fee or the graduate field fee, or a member of the full-time staff at the University. The health service is not available to these three excepted groups. The fee is optional for part-time members of the University staff who pay incidental fees at the staff rate, but persons who do not elect to pay the health fee forfeit the benefit of the health service. The health fee entitles a student to free consultation at the University Health Service and to hospital care for illness contracted while the individual is in the University.

ESTIMATE OF EXPENSES

The following table gives a close estimate of the necessary expenses of a student for the Summer Session. Three estimates are given: Low, average, and high. If a student shares his room with another and practices the strictest economy, he may possibly reduce these estimates. Some of the items depend on the scale of living of the individual student.

APPROXIMATE EXPENSES—EIGHT-WEEKS SESSION

	Low	*Average*	*High*
Incidental fee	$20.00	$20.00	$20.00
Activity fee	1.50	1.50	1.50
Health fee	2.50	2.50	2.50
Room	14.00	25.00	35.00
Board	32.00	45.00	56.00
Books	8.00	11.00	15.00
Laundry	6.00	8.00	10.00
Totals	$84.00	$113.00	$140.00

The table is for residents of Kansas. Nonresidents should add to the totals the difference between nonresident and resident incidental fees. The matriculation fee is not included in the tables.

TEACHING FACILITIES

LIBRARIES

The new library, Watson Hall, is centrally located on the campus and affords every modern convenience for study and research. The reading rooms are commodious, and particular provision is made for the needs of graduate students.

The University libraries now contain over 300,000 volumes properly catalogued and classified, and a large amount of uncatalogued material, including thousands of pamphlets. Over 2,300 different periodicals and publications of learned societies are received at the library each year by purchase, gift or

exchange. The Schools of Engineering and Law and the Departments of Mathematics, Physics and Geology maintain branch libraries in their respective buildings.

MUSEUMS

The University of Kansas is especially fortunate in its large and varied collection of museum materials.

The Dyche Museum of Natural History houses many of the scientific collections belonging to the University. The collection of North American mammals is a masterpiece of mounting and taxidermy. Over 4,500 specimens are available for study. Extensive exhibits of rocks, minerals, crystals, ores, fossils, and building stone, numbering over 60,000 specimens, are shown. The ornithological section has 22,500 specimens, 1,000 skeletons and 5,000 bird skins. The collection of ethnological materials contains about 20,000 specimens, some of which are very rare. The museum is open for inspection by students and visitors.

The internationally famous Snow collection of entomological specimens, numbering over 2,000,000 specimens, is located in a large, well-lighted room in the west wing of the Snow Hall biology building. This collection is being increased constantly by materials gathered by the biological survey and by exchanges with other institutions throughout the world.

Geology is represented by an extensive collection, parts of which are on exhibit in Haworth Hall. The rocks include practically all of the recognized varieties of igneous and sedimentary rocks, and in addition there are shown specimens of building stone and various types of ores.

The classical museum is located in the south end of Fraser Hall on the second floor, and offers to students of classical tastes an opportunity to study the best reproductions of art, architecture and sculpture. The collection of photographs and lantern slides illustrating Roman life and topography is very extensive.

The Thayer Art collection, given to the University by the late Mrs. William B. Thayer, of Kansas City, Mo., contains some of the finest illustrations of design in textiles, ceramics, and costumes; also important paintings of the American school, and Japanese prints of exceptional merit. The Spooner-Thayer Museum attractively houses and displays this valuable collection.

LECTURES AND FORUMS

The Summer Session Forum meets regularly on Tuesday evenings from seven to eight o'clock. This is an organization managed entirely by students of Education, and in past years the programs have been of a high order. While informal discussions predominate, the program is often varied by formal addresses by members of the faculty or visiting lecturers. Visiting speakers from other institutions appear frequently for special lectures. Heads of various departments also give a series of special addresses during the session.

LABORATORIES

The University is especially proud of its laboratory facilities. In every field in which laboratory work is needed, ample room, modern equipment and efficient supervision are provided.

Exceptional provision has been made for research work in botany, bacteriology, chemistry, entomology, physics and zoölogy. A large number of laboratory rooms have been provided where individual students may carry on study and research without disturbance from others. In general appointment and equipment these facilities are equal to those of the very best institutions.

Well-equipped lecture rooms, ample projection apparatus, individual laboratory desks and tables insure the student the finest possible situation for effective work. Instructors of the highest professorial rank are always available for consultation. Graduate students will find the Summer Session facilities for experimentation and research equal in every way to those of the regular year.

SUMMER SESSION KANSAN

The *Kansan* is the official publication of the Summer Session. It is printed by the Bureau of Printing, under the direction of the faculty of the Department of Journalism and the students taking work in that department. It is distributed free of charge to all Summer Session students on each Tuesday and Friday morning during the term.

HOUSING AND RECREATION

ROOMS FOR WOMEN

The list of approved rooming houses for women may be procured from the adviser of women. By action of the Board of Regents occupancy of rooms by women students shall be subject at all times to the approval of the adviser of women; women students are not permitted to lodge in houses in which men also lodge, unless for special reasons the rule is waived by the adviser. Women students may live in apartments only by special permission of the adviser of women, who must approve their chaperon.

Corbin Hall, dormitory for women students, will be open for occupancy during the Summer Session. It has accommodations for 120 women. It is a fireproof brick and stone structure, with running hot and cold water in every room. It is beautifully furnished, completely equipped and meets every demand for modern, wholesome living conditions at moderate prices. The rates are as follows:

	Eight weeks
Single room	$25
Double room (each person)	20
Double room (used by one person)	32
Dinners and breakfasts	30

Residents of Corbin Hall may have the option of taking meals at the hall—dinners and breakfasts for $30 for the eight weeks. Dinners will be served at six o'clock week days and at noon Sunday. Breakfast will be served cafeteria style from seven to nine o'clock. A rebate will be allowed for meals missed over the week-end provided sufficient notice of absence is given and provided the resident is out of town. Arrangements may be made for dinners by nonresidents of the hall, both men and women, at the rate quoted above. Reservations may be made through the office of the Adviser of Women.

All charges are payable in advance at the beginning of the session. The University furnishes all bedding, including sheets, pillows, blankets, pillowcases, bedspreads; also dresser scarfs. It does not furnish towels. The hall provides all dining-room linen.

There are numerous rooming houses and eating places which are in operation during the Summer Session.

Watkins Hall, Miller Hall. Through the munificence of the late Mrs. J. B. Watkins, of Lawrence, the University has two handsome halls of residence for women—Watkins Hall, opened in 1926, and Miller Hall, opened in 1937. Each has accommodations for forty women. See Corbin Hall schedule for room rates. No meals will be served at these halls.

For further details in regard to either rooming or boarding facilities write Miss Marie Miller, Assistant to the Adviser of Women, 220 Frank Strong Hall.

ROOMS FOR MEN

The list of approved rooming houses for men may be procured from the University Alumni Office, which is the authorized rooming agency for men in the University. This office, 2 Frank Strong Hall, is open throughout the summer. Students are urged to make use of its services.

The University attempts to secure the best housing conditions available for its students. The committee preparing the list investigates the sanitary and social conditions of the houses, and by careful survey determines a fair rental

price for each room. Students who are living in rooms are expected to do so only in houses which are on these lists.

The average cost of rooms in houses near the University is from $6 to $10 per month for single rooms. The cost per person of double rooms for the same period is somewhat less. The average charge for board is $4.50 to $5 per week. It must be remembered that the price charged is dependent on the quality of accommodations offered. Naturally the best places are higher priced.

Men's Residence Halls. Battenfeld, Carruth, and Templin halls, all adjacent to the campus, will be open for occupancy during the Summer Session, at the following rates for the eight-weeks term:

Single room	$24
Double room (per person)	18
Triple room (per person)	14

No meals will be served. Requests for information or application blanks should be addressed to the Men's Student Adviser, Room 1, Frank Strong Hall.

UNIVERSITY DINING HALL

The University Dining Hall (cafeteria) is located in the Student Union building. It will be open during the Summer Session, serving three meals daily. The average cost of meals served during the past year has been low and costs are kept as low as is consistent with good, well-cooked food. The preparation and serving of food is carefully supervised and students may be assured of good meals at a reasonable cost.

RECREATION

Among the strong inducements the University offers to Summer Session students are the opportunities for recreation. The campus itself, with its high location, plentiful shade and splendid view of the river valley is one of the most delightful and restful spots in Kansas. There are frequent opportunities for informal gatherings, parties, picnics and hikes to increase the pleasure of the session and to extend acquaintance by social intercourse in a wholesome outdoor life.

The University swimming pool in Robinson Gymnasium is open daily. There is available a carefully supervised outdoor pool under private management that may be used by the students at a special rate.

The athletic plant offers opportunities for wholesome play and for practically every form of indoor and outdoor exercise. The athletic field, with its track, twenty-four tennis courts and two baseball diamonds, is always ready for use without expense to the students. There are handball courts that will accommodate thirty-two players at one time. A golf course is available on the campus.

Each evening from Monday to Friday a program of games and play is provided on the quadrangle north of Fowler Shops. All Summer Session students and their families are welcomed. Supervised play for small children is directed by students in the Department of Physical Education. Adults may enjoy a variety of games, including shuffleboard, goal-hi, darts, croquet, and archery.

The School of Fine Arts will provide a series of high-grade musical attractions. This includes at least one evening program each week in which the faculty of the School of Fine Arts and the more advanced students will participate. The community sing which occurs on the campus at early twilight is very popular. A Summer Session orchestra will meet twice each week for rehearsal. This group gives a concert during the session which is one of the interesting events of the musical calendar.

There are frequent lectures by educators of note. The Sunday vesper services consisting of sacred concerts sponsored by the Fine Arts faculty and short addresses by widely known ministers have had a large attendance. The students of the Department of Education maintain a forum which meets each Tuesday evening for the discussion of educational topics.

All these campus entertainments and concerts are open to Summer Session students free of charge on presentation of the activity ticket.

DESCRIPTION OF COURSES

NOTE.—This program of courses is subject to change without notice, both as to courses offered and instructors giving the courses.

In the following list courses are numbered according to the plan indicated below except where otherwise specified.

1- 49	Courses open to freshmen and sophomores. Courses marked by a star (*) not open to freshmen.
50- 99	Courses open to juniors and seniors.
100-199	Courses open to juniors, seniors, and graduates.
200-299	Courses open to seniors and graduates.
300-399	Courses open to graduates (and occasionally to selected undergraduates with approval of the deans concerned).

ANATOMY

Professors: TRACY, LATIMER
Visiting Instructor: FLETCHER

NOTE.—The following four courses are to last ten weeks, two terms of five weeks each:

FIRST TERM—JUNE 11 TO JULY 12

161. THE UPPER EXTREMITY. Two hours credit. 80 hours. Fee, $5. 8:00-12:00 and 1:30-4:30. Tracy.

163. THE ABDOMEN AND THORAX. Three hours credit. 112 hours. Fee, $10. 8:00-12:00 and 1:30-4:30. Tracy.

SECOND TERM—JULY 14 TO AUGUST 16

162. THE LOWER EXTREMITY. Two hours credit. 80 hours. Fee, $5. 8:00-12:00 and 1:30-4:30. Latimer.

164. THE HEAD AND NECK. Three hours credit. 112 hours. Fee, $10. 8:00-12:00 and 1:30-4:30. Latimer.

NOTE.—The following courses are to last eight weeks:

†187. HISTOLOGY AND SPLANCHNOLOGY. Five hours credit. 36 hours didactic; 108 hours laboratory. Study of elementary tissues; development and structure of organs. Fee, $7. 8:00-11:00. Fletcher.

†189. NEUROLOGY. Three hours credit. 18 hours didactic; 96 hours laboratory. Prerequisite, course 187. Fee, $5. 1:30-4:30. Fletcher.

ART

Assistant Professor: WHITNEY
Instructor: FRAZIER
Assistant Instructor: WAID

DESIGN

13. DESIGN I. Three hours credit in the School of Fine Arts; two hours credit in the College. Training in the underlying principles of design, together with their application to surface patterns, borders and other decorative purposes. Study in color theory and lettering. Fee, 50 cents. 8:30-12:20, T.Th. Whitney.

† Courses 187 and 189 will be offered only if 10 or more students enroll in each.

14. DESIGN II. Three hours credit in the School of Fine Arts; two hours credit in the College. Continuation of course 13. Fee, 50 cents. 8:30-12:20, T. Th. Whitney.

33. DESIGN III. Three hours credit in the School of Fine Arts; two hours credit in the College. Development of designs from imagination and nature forms, special attention being paid to originality in treatment. The study of textile designing. Continuation of course 14. 9:30-12:20, M. W. F. Whitney.

34. DESIGN IV. Three hours credit in the School of Fine Arts; two hours credit in the College. Continuation of course 33. 9:30-12:20 M. W. F. Whitney.

163. DESIGN V. Three hours credit. Design for application to purposes of reproduction and to the various crafts. Designs for wallpapers and printed textiles, with especial references to processes of modern manufacture. Continuation of course 34. 9:30-12:20, M. W. F. Whitney.

164. DESIGN VI. Three hours credit. Continuation of course 163. 9:30-12:20, M. W. F. Whitney.

193. DESIGN VII. Three hours credit. Students are allowed to specialize in whatever lines of design, previously studied, they wish to follow. Particular attention is given to textile designing. Continuation of course 164. 9:30-12:20, M. W. F. Whitney.

194. DESIGN VIII. Three hours credit. Continuation of course 193. 9:30-12:20, M. W. F. Whitney.

301. DESIGN. Two or three hours credit. Prerequisite, course 194. 9:30-12:20, M. W. F. Whitney.

302. DESIGN. Two or three hours credit. Continuation of course 301. 9:30-12:20, M. W. F. Whitney.

HANDCRAFTS

(Fee: Handcrafts, $1.50; Bookbinding, Metalwork, $1.)

21. GENERAL HANDCRAFTS II. One or two hours credit. Application of design to textiles; special emphasis on screen printing. Continuation of course 2. 7:30-9:20, M. W. F. Whitney, Waid.

151. GENERAL HANDCRAFTS IV. Two hours credit. Special emphasis on weaving. Continuation of course 22. 7:30-9:20, M. W. F. Whitney, Waid.

152. GENERAL HANDCRAFTS V. Two hours credit. Continuation of course 151. Batik design applied to cotton and silk materials; weaving continued. 7:30-9:20, M. W. F. Whitney, Waid.

181. HANDCRAFTS VI. Two hours credit. Choice of work optional with the student. 7:30-9:20, M. W. F. Whitney, Waid.

182. HANDCRAFTS VII. Two hours credit. Continuation of course 181. 7:30-9:20, M. W. F. Whitney, Waid.

303-304. HANDCRAFTS (Metalwork, Bookbinding, General Handcrafts). (See general catalogue.) Two hours credit. 7:30-9:20, M. W. F. Whitney, Waid.

CLAY MODELING

(Fee, $2 a course)

29. POTTERY I. One or two hours credit. Modeling and designing of vase forms, tiles, etc.; second hour, making and applying of glazes and kiln firing. 7:30-10:20, T. Th. Whitney, Waid.

30. POTTERY II. One or two hours credit. Continuation of course 29. 7:30-10:20, T. Th. Whitney, Waid.

‡69. SCULPTURE I. Two hours credit. Prerequisite, course 30. 10:30-12:20, T. Th. Frazier.

‡70. SCULPTURE II. Two hours credit. Prerequisite, course 69. 10:30-12:20, T. Th. Frazier.

‡97. SCULPTURE III. Two hours credit. Prerequisite, course 70. 10:30-12:20, T. Th. Frazier.

‡98. SCULPTURE IV. Two hours credit. Prerequisite, course 97. 10:30-12:20, T. Th. Frazier.

159. POTTERY III. One or two hours credit. Continuation of pottery in advanced problems. Continuation of course 30. 7:30-10:20, T. Th. Whitney, Waid.

160. POTTERY IV. One or two hours credit. Continuation of course 159. 7:30-10:20, T. Th. Whitney, Waid.

189. POTTERY V. One or two hours credit. Continuation of course 160. 7:30-10:20, T. Th. Whitney, Waid.

190. POTTERY VI. One or two hours credit. Advanced problems. Design as applied to pottery. Continuation of course 189. 7:30-10:20, T. Th. Whitney, Waid.

305-306. POTTERY. Two hours credit. By appointment. Prerequisite, course 190 or equivalent. Whitney, Waid.

BACTERIOLOGY

Professors: SHERWOOD, DOWNS

*49. MAN AND MICROBES. Three hours credit. Lectures, assigned readings and demonstrations. Designed to introduce the student to a new world of living organisms and to acquaint him with fundamental biological concepts and to teach him how to live more safely and sanely in a world well populated with infectious agents. Fee, $1. 11:30-12:30. Sherwood.

150M. PATHOGENIC BACTERIOLOGY. Five hours credit. Primarily for medical and graduate students. Other students by permission. Prerequisite, five hours of college chemistry. Fee, $12.50. 7:30-11:20. Sherwood.

154. DIAGNOSTIC BACTERIOLOGY. Five hours credit. Work embraces lecture and laboratory work having to do with the principles and technic of laboratory tests commonly used in hospital and public health laboratories. Prerequisite, course 150 or equivalent. Fee, $12.50. 7:30-11:20. Downs.

261. SPECIAL PROBLEMS IN BACTERIOLOGY. One to eight hours credit. Total undergraduate credit limited to ten hours; graduates may reënroll for additional credit. Students may elect a problem in the following fields: A, General Bacteriology; B, Immunity; C, Diagnostic Bacteriology; D, Systematic Bacteriology; E, Sanitary Bacteriology; F, Hematology. Prerequisite, five or more hours of bacteriology, at the discretion of the department. Fee, $2.50 per credit hour. By appointment. Staff.

300. RESEARCH THESIS IN BACTERIOLOGY. One to eight hours credit. Prerequisite, ten hours of bacteriology. Fee, $2.50 per credit hour. By appointment. Staff.

301. RESEARCH IN BACTERIOLOGY. One to eight hours of credit, open only to qualified graduates. Prerequisite, five or more hours of bacteriology, at the discretion of the department. Fee, $2.50 per credit hour. By appointment. Staff.

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‡ Total enrollment in the four courses is limited to fifteen students. A minimum enrollment of eight students is required before courses will be offered. Fee, $15 per course in addition to incidental fee. Indication of interest, by mail or personally, to the department is desirable.

BIOCHEMISTRY

Professor: NELSON
Assistant Professor: GARBER

150. Biological Chemistry. Five hours credit. Prerequisites, Inorganic Chemistry (including Qualitative Analysis), and Organic Chemistry. Volumetric Analysis highly recommended. Fee, $6. Lectures, M. T. W. Th. F., 7:30-9:20; laboratory, T. Th., 9:30-11:20. Nelson, Garber.

151. Biological Chemistry (Quantitative Methods). Three hours credit. Prerequisite, course 150 or its equivalent and Quantitative Analysis. Fee, $9. M. T. W. Th. F., 9:30-11:20; M. F., 1:30-3:30. Nelson, Garber.

301. Research in Biological Chemistry. Two to five hours credit. By appointment. Nelson.

BOTANY

Professor: MIX
Instructor: DURELL

1. The Living Plant. Five hours credit. Introduction to plant structures and functions and what plants reveal about the fundamental problems of life and their relation to our welfare. Lectures, demonstrations, laboratory and recitations. Not open to students who have had course 50. Fee, $2.25. 7:30-10:20. Mix.

61. Trees and Shrubs. Three hours credit. The more common trees and shrubs. Their identification and uses in landscape composition. The elements of horticultural practices, including pruning, propagation, and general care. 10:30-11:20. Durell.

153. Fungi. Three hours credit. Lectures, recitations, and laboratory work on the structure and life histories of fungi. Prerequisites, course 1 or equivalent. Fee, $2. 11:30-12:20 plus afternoon collecting trips. Mix.

170. Botanical Problems. Three to five hours credit. Maximum credit for undergraduates, ten hours. An introduction to methods of botanical research. Original investigation in one of the following fields: (*a*) Morphology of Thallophytes, Bryophytes, or Pteridophytes; (*b*) Plant Pathology. Prerequisites, 10 hours of botany, including an introductory course in the field of investigation. Fee, $2. By appointment. Mix.

CHEMISTRY

Professors: STRATTON, BREWSTER, DAVIDSON, TAFT

3. Inorganic Chemistry and Qualitative Analysis. Five hours credit. Lecture, 7:30-8:30; laboratory, 8:30-12:00. Prerequisite, course 2 or 2E. Fee, $10. Davidson.

49. Quantitative Analysis. Three hours credit. Prerequisite, course 3 or 3E. Fee, $8.25. Lecture 11:00-12:00, T. W. Th. F.; laboratory, †8:30-11:00, T. W. Th. F. Taft.

161. General Organic Chemistry. Five hours credit. Designed to cover the principal topics in the aliphatic and aromatic series. It also fulfills the requirements in organic chemistry for admission to the School of Medicine. Prerequisites, courses 2 and 3. Fee, $9.50. Lecture, 7:30-8:45; laboratory, 8:45-11:30. Stratton.

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† Four laboratory periods per week required.

171. PHYSICAL CHEMISTRY I. Five hours credit. This course deals with the fundamental relationships between the properties of gases, liquids, solids, and solutions, and with the elementary principles of thermodynamics and chemical equilibrium. Prerequisites: Chemistry 48 or 49, 44E or 161, and satisfactory preparation in college physics and calculus.‡ Fee, $10. Lectures, 7:30-8:20; laboratory, 8:30-11:30. Taft.

302. ADVANCED TOPICS IN INORGANIC AND PHYSICAL CHEMISTRY. Two or three hours credit. General prerequisites and courses 171 and 172. 11:30-12:20. Davidson.

364. ADVANCED ORGANIC PREPARATION AND ANALYSIS. Two to five hours credit. Lectures and laboratory work. Must be preceded by course 163 or its equivalent. A study of organic synthetic methods and ultimate organic analysis. General prerequisites and course 171 or 172. By appointment. Fee, $2 per hour. Brewster.

365. ORGANIC CHEMISTRY RESEARCH. Two to five hours credit. This course offers, to those who have the proper preparation, a chance for extended study and original investigations. General prerequisites and courses 163 and 164. Fee, $1 per hour. By appointment. Stratton, Brewster.

367. ADVANCED TOPICS IN ORGANIC CHEMISTRY. Three hours credit. General prerequisites and course 163. By appointment. Brewster.

376. PHYSICAL CHEMISTRY RESEARCH. Two to five hours credit. A course extending over one or more semesters. An opportunity is offered to those who are sufficiently advanced, to carry on investigations in this branch of chemistry. General prerequisites and courses 171, 172, and 356. Fee, $1 per hour. By appointment. Davidson, Taft.

ECONOMICS

Professors: STOCKTON, ISE, TAGGART
Associate Professor: SHANNON
Assistant Professor: ROARK

All courses numbered under 300 count for credit in the schools of Business, Education, Engineering and Architecture, and Pharmacy.

Courses 1, 5, 9, 140, 150, 153, 161, and 198 count for general College credit; courses 110, 194, and 195 count for professional credit.

All courses over 100 count for credit in the Graduate School.

1. INTRODUCTORY ECONOMICS. Three hours credit. A study of production and consumption, stressing the relation to social welfare of our principal economic institutions and processes, such as business organization, marketing, banking, risk bearing, business cycles, foreign trade, and public finance. Economic maladjustments, such as those arising from misdirection of production and insufficient income, their nature and method of treatment. Price and distribution theory is omitted. Not open to juniors and seniors. 9:30-10:20. Taggart.

*5. PRICE AND DISTRIBUTION. Three hours credit. An analysis of the forces which, through the price system, determine the quantity of each good produced and the distribution of those goods to the factors of production—land, labor, capital, and management. Although the analysis is made for the most part on the assumption of competition, the effects of monopoly are briefly discussed. Fee, 50 cents. Not open to freshmen. 8:30-9:20. Ise.

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‡ Satisfactory preparation in general physics and calculus is defined as follows: At least a semester's credit in college physics and in differential calculus and concurrent enrollments in the second semester of college physics and in integral calculus. Preferably, credits in a year of college physics and in differential and integral calculus should be presented to meet the prerequisites.

9. ACCOUNTING I. Three hours credit. Theory and practice of modern accounting; statements, books of account, entries, etc. Open to students who have completed twelve hours of college credit. 10:30-11:20. Shannon.

110. VALUATION ACCOUNTING. Three hours credit. The problems of statement admission, valuation, and presentation of each typical asset and equity element with related revenue and expense aspects. Prerequisite, course 10. 7:30-8:20. Shannon.

140. LAND ECONOMICS. Two hours credit. Land as an economic factor; land classification, utilization, tenure, settlement, and taxation. 11:30-12:20. Ise.

150. MONEY AND BANKING. Three hours credit. The basic principles of money, credit, and banking and their relation to prices and the business cycle; a study of commercial banking and the problems of credit control. Prerequisite, course 5 or 90. 8:30-9:20. Taggart.

153. COMMERCIAL BANKING. Two hours credit. Relationship of the commercial bank to other loan agencies; the lending and investment functions of banks; the flow of funds through the money market; open market influences on bank policy. Prerequisite, course 150. 7:30-8:20. Taggart.

161. PUBLIC FINANCE. Three hours credit. A general introduction to the science of public finance; public expenditures, public revenues and public credit, shifting and incidence of taxation. Course 5 must precede or accompany. 9:30-10:20. Ise.

186. CREDIT MANAGEMENT. Two hours credit. The principles and practices of credit management, with special attention to mercantile credit. Prerequisite, eight hours in the department. 8:30-9:20. Roark.

194. BUSINESS LAW I. Three hours credit. The main principles of contract, bankruptcy, and agency. 10:30-11:20. Roark.

195. BUSINESS LAW II. Three hours credit. Continuation of course 194. The main principles of negotiable instruments, sales of personal property, and bailments. 11:30-12:20. Roark.

198. WAR ECONOMY PROBLEMS. Two hours credit. Economic effects of modern war upon neutral nations; industrial production, agriculture, transportation, finance, management, and labor in relation to national defense programs; economic policies under war conditions; readjustment to a peace economy. Prerequisite, course 1 or its equivalent. 10:30-11:20. Stockton.

300. THESIS. Two to five hours credit. Individual research work. By appointment. Staff.

315. SEMINAR IN INDUSTRIAL MANAGEMENT. One to three hours credit. Special topics relating to personnel and production. By appointment. Stockton.

EDUCATION

Professors: SCHWEGLER, OBRIEN, TWENTE, NASH
Associate Professors: RUSSELL, ALTHAUS, BAYLES, CHANDLER, BARNHART, ELBEL
Assistant Professors: ULMER, GASTON
Instructors: LITCHEN, MONTGOMERY, DEGRAW
Visiting Instructors: BROOKS, JACOBS, ULLRICH, F. MITCHELL, SALYER

Graduate students who plan to do their major work in the field of Education will elect their course sequences after conference with the Committee on Graduate Study, J. W. Twente, chairman.

Undergraduate candidates for the various baccalaureate degrees who wish to qualify for the state teaching certificate will elect their Education courses after conference with A. H. Turney, the Education adviser.

Candidates for the sixty-hour certificate will consult the Director of the Summer Session before electing courses in Education.

ADMINISTRATION

A50. Introduction to School Administration. Two hours credit. The theory and practice of the administration of schools, outside of the classroom, with special reference to the legal, financial, and social background involved. The Kansas school laws are covered in this course, meeting requirements of the State Board of Education. This course is one of the required components of the Fundamentals Group. Fee, $1. 7:30-8:20. Althaus.

A158. Visual Education in Elementary and Secondary Schools. Two hours credit. The theory and administrative practice of visual education, types of equipment, sources of supply, maintenance, and relative educational values of accepted modes of visual education. Prerequisite, 15 hours of Education. 11:30-12:20. Montgomery.

A159-273. Administration of Smaller Schools and City School Administration. Three hours credit. A study of the administrative problems of school systems in third-class and smaller second-class cities, consolidated, community and rural high-school districts. Prerequisite, the Fundamentals Group. 8:30-9:20. Jacobs.

A250. Organization and Administration of Elementary Schools. Three hours credit. Intended to familiarize school superintendents, principals and teachers with distinctive successes and problems as found in elementary school organization and practice; also to provide understanding, discussion and criticism of recent developments in this important division of the school system. Its functions, program, articulation, equipment and special features, such as library, guidance, and recreation will receive attention. A study of the best in elementary school developments or experiments will be given emphasis, rather than detailed administrative procedure. Prerequisite, 15 hours of Education. 8:30-9:20. Ullrich.

A304. Seminar in Educational Administration. Required without credit of all graduate students who elect to do research in educational administration (A399). By appointment. Staff.

A351. Adult Education, Aims, Methods and Organization. Two hours credit. This course considers the fundamental principles in adult education and examines the various developments in this field. The origins, social philosophies, objectives, methods, and results of the different types of adult institutions will be studied. A partial list of types to be examined includes: Public schools, university extension, Smith-Lever agricultural extension, Smith-Hughes vocational education, private vocational courses for adults, libraries, parent education, workers' education, industrial classes, people's colleges, opportunity schools, etc. Some time will be devoted to the radio, club activities, and public forums as agencies in adult education. Prerequisite, 15 hours of Education. Students should in each case consult an adviser and obtain the consent of the department before enrolling in this course. 9:30-10:20. Russell.

A371. Administration of the Curriculum. Two hours credit. Intended for superintendents, principals and other staff members charged with the organization, installation and administration of the curriculum. Discussion, investigation, and reports on the following and other related topics: Special responsibilities of the administrator in initiating and directing curriculum construction, administrative set-up, methods, procedures and costs of operation of temporary and continuous programs; special problems involved in organizing both the integrated and subject-matter types of curricula; techniques for evaluation and appraisal of procedures; organization of state and local programs. Prerequisite, 15 hours of Education. 10:30-11:20. Althaus.

A376. The Business Administration of City Schools. Three hours credit. An intensive study of current practice in school accounting, budget making, financial reporting, pay-roll procedure, purchase, storage and distribution of supplies, insuring school property, operation and maintenance of the school

plant, financing capital outlays, and planning and executing school building programs. Prerequisites, City School Administration and 15 hours of Education. 8:30-9:20. Twente.

A378. Public School Relations. Two hours credit. A study of the principles of educational information service and of the agencies for promoting intelligent community interest in school progress and achievement. Reading, reports and an individual project required of each student. Prerequisite, 15 hours of Education. 9:30-10:20. Ullrich.

A379. The Establishment and Operation of a Junior College. Three hours credit. Discussions, investigations, reading, reports; a comprehensive treatment of the functional and organizational aspects of a junior college, with special emphasis given to standards, curricula, housing, financing, teaching personnel, student population, library, recording system, teaching procedures, equipment, outcomes, and articulation with schools and community. Students enrolling for this course are invited to bring their own problems or data for study. Prerequisite, 15 hours of Education. 7:30-8:20. Chandler.

A399. Research in Educational Administration. Two to eight hours credit. Required of all candidates for the degree of Master of Arts or Master of Science or Master of Education, whose primary interest is in the field of educational administration. The work of the course consists of intensive and independent investigation done under the general direction of the instructor in charge. To secure credit in the course the results of the study must, save in the case of candidates for the degree of Master of Education, be presented in the form of an acceptable thesis. Prerequisite, one of the following: E272, A273, A274. By appointment. Staff.

SECONDARY EDUCATION

B260. Principles of Secondary Education. Three hours credit. A systematic introductory study of the general field of secondary education. Special reference will be made to the historical, comparative, administrative and social aspects of the problem. Prerequisite, The Fundamentals Group. 7:30-8:20. Brooks.

B261. Administration of Junior and Senior High Schools. Three hours credit. A consideration of modern administrative practice in secondary schools. Attention given to the problems of both junior and senior high schools and to the articulation of the two. Prerequisite, the Fundamentals Group. 10:30-11:20. Brooks.

B264. The Administration of Extracurricular Activities. Two hours credit. The development of practical method and technique in the organization and administration of pupil participation in those activities which fall outside of the group for which academic credit is ordinarily given. Problems are drawn from situations which arise in the course of the conduct of typical secondary schools. Course designed to meet the needs of both administrators and teachers. Prerequisite, the Fundamentals Group. 11:30-12:20. Jacobs.

B377. Problems of Secondary School Practice. Two hours credit. An analysis by the case method of typical problems occurring in secondary school practice. The problems will be drawn from any of the situations which arise in the course of the conduct of typical secondary schools. The course is intended especially for secondary school workers, and will involve conference, library reading and class reports. Prerequisite, 15 hours of Education. 8:30-9:20. Brooks.

MEASUREMENTS, EXPERIMENTATION, AND SUPERVISION

E50. Introduction to Educational Measurement. Two hours credit. One of the elective elements of the Fundamentals Group. An introductory study of the classroom measurement of ability and achievement. The construction of tests, the distribution of marks, the principles of test interpretation. Fee, $1. 9:30-10:20. Althaus.

E166. Statistical Methods. Three hours credit. Provides an introduction to the use and interpretation of statistical methods in education. It introduces the student to scientific method and technique as a necessary preparation for later courses in measurement, supervision, psychology, administration, experimentation, etc. Actual practice is provided for training the student in the use of simple statistical procedure. Reading assignment, laboratory work and lectures are provided in each division of the work. Prerequisite, the Fundamentals Group. 10:30-11:20. Ulmer.

E310. Methods of Research. Two hours credit. A study of the methods employed in the securing, treatment and presentation of data bearing upon educational problems. Prerequisite, 15 hours of Education. 10:30-11:20. OBrien.

E352. Educational Measurements. Three hours credit. The course in Educational Measurements is designed to introduce students to the changes which have taken place in educational practice due to the employment of more scientific instruments of measurement. The inadequacy of subjective measures, the importance of diagnosis and remedial types of instruction are emphasized. The student will have an opportunity to develop actual acquaintance with standardized tests in his own and related fields. He will receive practice in the selection, administration, scoring, and tabulation of results pertaining to educational tests. Prerequisite, 15 hours of Education. 11:30-12:20. OBrien.

E370. School Surveys. Two hours credit. A study of kinds, purposes, methods and results of school surveys. Includes a study of selected parts of standard surveys and a consideration of types of practical survey work possible for teachers and administrators in public-school systems. Prerequisite, 15 hours of Education. 10:30-11:20. Twente.

E377. Problems of Elementary School Supervision. Two hours credit. A course for elementary school principals and teachers covering a general consideration of the aims of elementary education, detailed study of the curricula with reference to materials of instruction and special techniques developed, individual differences from the standpoint of supervision, and a general consideration of method with special reference to the proper use of the problem project. Prerequisite, 15 hours of Education. 7:30-8:20. Jacobs.

E399. Research in Educational Measurement and Supervision. Two to eight hours credit. Required of all candidates for the degree of Master of Arts and Master of Science in Education or Master of Education, whose primary interest is in the field of educational measurement and supervision. The work of the course consists of intensive and independent investigation done under the general direction of the instructor in charge. To secure credit in the course the results of the study must be presented either in the form of a thesis or as a carefully prepared report, whichever is suitable to the purposes for which the study is made. Prerequisites are E252 and E272. Graduate students electing to do research in educational measurement and supervision will attend A304, Seminar in Educational Administration. By appointment. Staff.

HISTORY OF EDUCATION

H64. A Survey of American Education. Two hours credit. A careful review of the development of present-day educational practice. The field will be covered with special reference to the development of public schools—primary, secondary, and collegiate. This course is one of the elective components of the Fundamentals Group. 8:30-9:20. Ulmer.

THEORY AND PRACTICE OF TEACHING

M269. Methods of Teaching in Elementary Grades. Three hours credit. An intensive study of current methods of teaching in elementary grades in the light of their psychological and practical implications. Prerequisite, 15 hours of Education. 11:30-12:20. Ullrich.

M340. Modern Teaching Procedures. Three hours credit. This course represents a systematic study of current proposals for the improvement of teaching, each chosen on a basis of the degree to which it typifies one of the major points of view regarding teaching. The purpose of the course is to help the teacher attain a clearer understanding and consequent improvement of his own teaching procedures. Prerequisite, 15 hours of education. 11:30-12:20. Bayles.

M377. Problems in the Theory and Practice of Teaching. Two hours credit. This is a seminar course and is designed to furnish opportunity for group study of practical teaching problems chosen by individual class members. The problem or problems are chosen by the class at the beginning of the course. Outstanding books of recent publication may be subjected to critical review. All problems are treated in the light of basic teaching theory, and the course thereby aids a student to develop a more adequate teaching philosophy. Prerequisite, M240-M340, or consent of instructor. 9:30-10:20. Bayles.

M399. Research in the Theory and Practice of Teaching. Two to eight hours credit. Required of all candidates for the degrees Master of Arts or Master of Science in Education whose primary interest is in the field of theory and practice of teaching or the teaching of a special subject matter. The work of the course consists of intensive and independent investigation done under the general direction of the instructor in charge. To secure credit in the course the results of the study must be presented either in the form of a thesis or as a carefully prepared report, whichever is suitable to the purpose for which the study is made. Prerequisites, M240-M340, and if the study is statistical in nature, at least one of the following courses: E166, E252-352, E253-E353, E310, or P255. By appointment. Staff.

A. Special Methods in the Academic Fields

Note.—One of the following two courses will be offered, depending upon student demand. Early indication of choice, by mail or personally to the department, is desirable.

176. Tests and Measurements in Physical Education. Three hours credit. See Physical Education.

M194. Content and Methods of Physical Education. Three hours credit. Required of all students majoring in Physical Education. Prerequisites, course 36 and Fundamentals Group. A study of the content and methods of elementary and secondary school physical education, with specific methods regarding games, rhythmic exercises, stunts and self-testing activities. This course also includes study in characteristics, tendencies, and needs of children of various ages in relation to physical activities. 8:30-9:20. Elbel.

M291. The Teaching of Social Studies. Three hours credit. Study of the Educational and social background of present social-studies curricula and the educational objectives and values to be attained. An evaluation of subject content made in terms of student response. Content gradation, individual differences, library-laboratory, tests, grading, special methods of procedure, devices, classroom technique and textbook analysis are among the topics considered. Prerequisite, the Fundamentals Group, and a major in one of the social sciences. 11:30-12:20. Litchen.

B. Special Methods in the Teaching of Design

M10.† Elementary School Art Methods. Three hours credit. Required of all candidates for sixty-hour elementary school certificate. This course will include: (1) methods of teaching drawing, painting, design, and crafts, on the different grade levels; (2) studio instruction for the teacher in principles of drawing, painting, design, and crafts to be taught; (3) problems suitable for grade-school art. 7:30-8:20. A minimum enrollment of 10 students is required. DeGraw.

† Course M10 will be offered only if 10 or more students enroll.

C. Special Methods in the Teaching of Music

‡M21. Elementary School Music Methods. Three hours credit. Required of all candidates for sixty-hour elementary certificate. A study of music literature suited to children through the development of purposive listening and the expressive phases of music, including rhythmic responses, singing, playing, reading, and writing. Laboratory (two hours without credit) required of all students who cannot sing and read songs of fourth-grade level. 11:30-12:20. A minimum enrollment of 8 students is required. Barnhart.

‡M62. Public-school Music Methods for the Intermediate Grades. Two hours credit. Study of material and methods involved in the development of a music vocabulary that is essential to music reading. In addition to unison singing, emphasis is given to two- and three-part singing. 8:30-9:20. A minimum enrollment of 8 students is required. Barnhart.

M64. The Teaching of Music in Senior High School. Two hours credit. Study of material and methods of developing choral and instrumental organizations, classes in music history and appreciation, theory, music reading, harmony, and plans for crediting outside study of applied music. 9:30-10:20. Gaston.

EDUCATIONAL PSYCHOLOGY

P35. Essentials of Reading. Three hours credit. The purposes of this course are to give the student a knowledge of the importance of reading, a knowledge of the reading skills and habits which should be developed by children in the elementary schools, an understanding of the methods of teaching reading on the different grade levels and an acquaintance with the sources of materials on reading problems. The course is designed to meet the requirements of the course of study for the sixty-hour certificate. 10:30-11:20. Mitchell.

P50. Educational Psychology. Three hours credit. Required of all candidates for the three-year life certificate. This course is one of the Fundamentals Group. It may be elected separately by students who for any reason are debarred from Fundamentals Group. The nature, variation, and correlation among human capacities; factors involved in learning; conditions of learning; problems of transfer in learning. Prerequisite, General Psychology, including laboratory. Fee, $1. 10:30-11:20.

P123. Psychology of Music Education. Two hours credit. Study of the physical, physiological and psychological aspects of music in relation to music education. Consideration of the appeal of music, its physical basis, and psychology of musical functions, measurement and diagnosis of musical ability and important experimental investigations relevant to music education. Prerequisite, Educational Psychology. 7:30-8:20. Gaston.

P268. Psychology of Reading. Two hours credit. Study of the types of reading and study difficulties in learning school subjects. Methods of diagnosis and remedial work useful to classroom teachers and to supervisors. Prerequisite, Fundamentals Group. Not open to students who have had P266-P366. 8:30-9:20. Mitchell.

P281. Reading and Study Laboratory. Two hours credit. A laboratory course employing high-school and college students as subjects. Follows P268. Reading and study faults; means of diagnosing and building up more adequate and more economical reading and study processes. Especially designed for classroom teachers and supervisors as a means of assisting children in learning. Prerequisite, P268-P368. Fee, $2. 1:30-2:30. Mitchell.

P300. Seminar in Educational Psychology. Required without credit of all graduate students who elect to do research in educational psychology. By appointment. Staff.

‡ Courses M21 and M62 will be offered only if 8 or more students enroll in each course.

P354. Educational Clinic. Three to five hours credit. Training in the use of individual mental and personality tests, and in making psychological diagnosis of children; laboratory work with local children and with children in the state institutions for the mentally defective and the delinquent. Prerequisite, P367 and consent of instructor. Fee, $3. 1:30-4:20. Nash.

P355. Mental Measurements of School Children. Three hours credit. The practice of mental measurements. The course deals with the problems of mental measurements as they occur in typical school situations. Prerequisite, 15 hours of Education. 8:30-9:20. Salyer.

P367. Advanced Educational Psychology. Three hours credit. Study of mental capacities and other phases of differences among school children; intensive analysis of learning and problems of transfer; the student will be expected to become familiar with the contemporary psychological treatment of these problems. Prerequisite, 15 hours of Education. 9:30-10:20. Nash.

P371. The Nontypical Child. Three hours credit. The growth and development of children, with special reference to the nature and causes of and remedial treatments for children who are not normal. Especial emphasis is placed upon school problems of the mentally subnormal and the superior, and those who have personality defects of a mental or emotional type. Intended for teachers interested in the deviations of their pupils, and for those who wish to specialize in clinical psychology or counseling work. Prerequisite, 15 hours of Education. 10:30-11:20. Salyer.

P399. Research in Educational Psychology and Guidance. Two to eight hours credit. Required for all candidates for the degree of Master of Arts or Master of Science or Master of Education, whose primary interest is in the field of educational psychology and guidance. The work of the course consists of intensive and independent investigation done under the general direction of the instructor in charge. To secure credit in the course the results of the study must, save in the case of candidates for the degree of Master of Education, be presented in the form of an acceptable thesis. Prerequisites are two of the following: E252, P271, P255, P354. By appointment. Staff.

EDUCATIONAL SOCIOLOGY

S292. An Introduction to the Study of the Curriculum. Three hours credit. An orientation course in the curriculum emphasizing the place of the school in society, past and present influences upon the curriculum, current curriculum practices, basic principles and approaches to curriculum development, administrative organization for curriculum revision, and curriculum evaluation. Prerequisite, the Fundamentals Group or its equivalent. 7:30-8:20. Russell.

S294. Construction of the Secondary School Curriculum. Three hours credit. Primarily a laboratory course for secondary school teachers and principals. The findings of recent secondary school curriculum studies, new courses of study, and types of curricula will be analyzed. Each student will formulate a definite curriculum problem for special study. Prerequisite, the Fundamentals Group or it equivalent and S292. 9:30-10:20.

S393. Construction of the Elementary School Curriculum. Three hours credit. Primarily a laboratory course for teachers and administrators interested in the elementary school curriculum. The findings of scientific research in this field will be surveyed and recent courses of study and types of curricula will be critically examined. Each student will work on a definite curriculum problem and students are invited to bring curriculum problems from their own school for special study. Prerequisite, the Fundamentals Group or its equivalent and S292. 11:30-12:20.

S399. Research in Curriculum Construction. Two to eight hours of credit. The work of this course consists of intensive and independent work

done under the general direction of the instructor in charge. To secure credit in this course the results of the study must, save in the case of candidates for the degree of Master of Education, be presented in the form of an acceptable thesis. Prerequisites, S292 and either S293 or S294. By appointment. Staff.

PHILOSOPHY OF EDUCATION

T268. THE PRINCIPLES OF EDUCATION. Two hours credit. An analysis of educational theory and practice in the light of the facts of biology, psychology, and sociology. Lectures, conferences, reports. Prerequisite, the Fundamentals Group. 9:30-10:20. Schwegler.

VOCATIONAL EDUCATION

V156. VOCATIONAL EDUCATION. Two hours credit. The development of vocational education in Europe and America; its organization and administration; the relation of the school system to the various industries of the community; the relation of industrial education to vocational guidance; the consideration of the various theories for the adjustment of educational means to vocational aptitudes. Prerequisite, the Fundamentals Group. 8:30-9:20. OBrien.

ENGINEERING

Professors: HAY, JONES, BROWN
Associate Professor: TAIT
Instructor: HENRY

APPLIED MECHANICS

1. APPLIED MECHANICS. Two hours credit. The principles of static with special attention to engineering application. Prerequisite, Mathematics 2E and 3A, or may be taken concurrently. 10:30-11:20. Jones.

50. APPLIED MECHANICS. Three hours credit. The principles of kinematics and kinetics, with special attention to engineering applications. Prerequisites, course 1 and Mathematics 7 or 7E. 9:30-10:20. Jones.

51. STRENGTH OF MATERIALS. Four hours credit. The theory of stress and deformation in elastic bodies, with special attention to the applications in engineering design. Prerequisites, course 50 and Mathematics 7 or 7E. 7:30-9:20. Tait.

CIVIL ENGINEERING

11. ELEMENTARY SURVEYING. Three hours credit. Two hours of classwork and one hour of field. A brief course for noncivil engineering students. 1:30-5:20. Brown.

MECHANICAL ENGINEERING

4. STEAM MACHINERY. Two hours credit. Fuels, combustion and steam generation. A study of boiler and engine types. Prerequisites, high-school chemistry or enrollment in chemistry. 9:30-10:20. Tait.

45.† GROUND SCHOOL COURSE. Three hours credit. Includes all requirements of the Civil Aeronautics Authority prescribed course, navigation, meteorology, civil air regulations, etc. 7:30. Henry.

60.† ADVANCED GROUND SCHOOL COURSE. Four hours credit. Aerodynamics, aircraft structure, navigation, aircraft power plants, aircraft instruments. Prerequisites, M. E. 45 and junior standing. By appointment. Hay.

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† The two ground school courses, M. E. 45 and 60, will be dependent upon continuance of the flight training program by the Civil Aeronautics Authority.

150. MACHINE DESIGN. Five hours credit. Problems in the design of general machine parts, including cylinders, plates, springs, riveted joints, bearings, journal shafts, gears, pulleys, and belts. Lectures, recitations, and drawing. Prerequisites, course 3 and Applied Mechanics 51. 9:30-12:20. Tait.

153. MACHINE DESIGN. Three hours credit. Shorter course for electrical engineering students and chemical engineering students, covering the same general ground as course 150. Prerequisite, Applied Mechanics 51. 9:30-12:20. Tait.

NOTE.—Only four of the regular courses listed above (A.M.1, A.M.50, A.M.51, C.E.11, M.E.4, M.E.150 or M.E.153) will be offered, depending on student interest. Early indication of choice, by mail or personally, to the department is desirable.

ENGLISH

Professors: ASHTON, BURNHAM, NELSON
Associate Professor: HANKINS
Assistant Professors: HOOPES, BARNES, VIRTUE, PADEN

1. RHETORIC I. Three hours credit. Written exercises, with study of rhetorical theory. Required of all freshmen in the College and School of Fine Arts not offering for entrance a fourth unit in English composition. 10:30-11:20. Paden.

10. ENGLISH LITERATURE. Two hours credit. A study of representative authors. Prerequisite for all other courses in the department above 11, except 54, 56, 59, and 90; but not required of students who offer for entrance a fourth unit in English literature. Required of sophomores in the School of Fine Arts. 11:30-12:20. Virtue.

11. ENGLISH LITERATURE. Three hours credit. Continuation of course 10. Prerequisite for all later courses in the department, with the exceptions indicated under course 10. Required of sophomores in the School of Fine Arts. 10:30-11:20. Virtue.

*12. HISTORY OF ENGLISH LITERATURE. Three hours credit. Prerequisite, courses 1 and 2, and either 10 or 11 or a fourth year of English literature in high school. 10:30-11:20. Barnes.

*16. CHILDREN'S LITERATURE. Two hours credit. Intended primarily for candidates for grade-school teaching positions. Does not fulfill the College requirement for a course in literature. 9:30-10:20. Barnes.

50. NARRATION AND DESCRIPTION. Three hours credit. Recommended as preparation for English 155 to 158, inclusive. 8:30-9:20. Virtue.

160. ELEMENTARY OLD ENGLISH. Three hours credit. 8:30-9:20. Burnham.

171. AMERICAN LITERATURE I. Three hours credit. From the beginning to 1865. 10:30-11:20. Nelson.

174. ENGLISH LITERATURE OF THE EIGHTEENTH CENTURY. Three hours credit. 11:30-12:20. Paden.

178. SHAKESPEARE: INTENSIVE STUDY. Three hours credit. Two plays. 9:30-10:20. Hankins.

183. MILTON AND HIS CONTEMPORARIES. Three hours credit. 8:30-9:20. Ashton.

188. THE ENGLISH NOVEL. Three hours credit. From Defoe to Meredith. 9:30-10:20. Hoopes.

192. ELIZABETHAN PROSE AND VERSE. Three hours credit. 9:30-10:20. Ashton.

303. Introduction to Comparative Literature: Ancient Literature. Three hours credit. (A total of not more than six hours may be obtained in courses 303 and 304.) 8:30-9:20. Hankins.

324. Investigation and Conference: Two to five hours credit. By appointment.

(*a*) Studies in the English Renaissance. Ashton, Hankins.
(*b*) Studies in Nineteenth Century Literature. Nelson.
(*c*) Studies in American Literature. Nelson.
(*d*) Studies in Drama. Hankins, Ashton.

325. Thesis. Two to eight hours credit. Not more than fifteen hours credit toward the M. A. degree may be obtained in courses 324 and 325, except by special permission of the Graduate Committee of the department and the dean of the Graduate School. By appointment. Hankins, Nelson, Ashton.

ENTOMOLOGY

Professor: BEAMER
Associate Professors: DOERING, WOODRUFF

1. Biology of Insects I. Five hours credit. A general course in life and behavior of insects and other arthropods, and their relation to plants and other animals. A field, laboratory and lecture course with recitations designed for the general student. Fee, $1. 7:30-10:20. Doering.

157. Household and Garden Insects. Two hours credit. This course deals especially with those insects that are intimately associated with the household, the garden, and the yard. This is a nontechnical course, and is intended for the general student. 11:30-12:20. Woodruff.

162. Biological Survey. Three to five hours credit. By permission from the head of the department and special arrangements with instructor, certain qualified students may enroll in this course. The course, conducted in the field, consists of a taxonomic and biological study of insects and allied forms. Beamer.

163. Field Entomology. Three to six hours credit. Gives first-hand knowledge of the behavior and life histories of insects from personal observations of living material. Field and laboratory work. Each student must rear two life histories for each hour's credit. Prerequisite, course 1 or its equivalent in other biological training. Fee, $1. 7:30-10:20 and appointment. Doering.

164. Special Problems. Two to six hours with a maximum of six hours credit. Open to seniors only who are ready to take up some special problem which may either be completed as an undergraduate study or be the beginning of a problem leading to an advanced degree. Fee, $1. By appointment. Staff.

GEOLOGY

Professors: LANDES, MOORE, POSEY
Associate Professor: SCHOEWE

3a. Principles of Geography. Three hours credit. Lectures same as course 3, but without laboratory. Not allowed for use in filling group requirements. Prerequisite, two years high school mathematics or equivalent. 8:30-9:20. Posey.

4. Economic Geography. Two hours credit. The staple commodities of commerce, their production, exchange and consumption, with some account of the economic organization of each industry studied. 10:30-11:20. Posey.

†11. PHYSICAL GEOLOGY. Five hours credit. Recitations, laboratory and field trips. This course is prerequisite for all advanced courses in geology except 31 and 161, and is designed as the first course for students who intend to take major work in geology. Not open to students who have had course 1. Prerequisite, two years high school mathematics or their equivalent. By appointment. Fee, $10. Schoewe.

NOTE.—This course will be given at the Geology Camp near Canon City, Colo., July 26-August 30. A minimum enrollment of ten students is required. Persons interested should write to the department.

57. GEOGRAPHY OF SOUTH AMERICA. Three hours credit. The physical features, climates and resources of the continent; their effects on the development and prospects of the different countries; geographic factors affecting trade between the United States and South America. Prerequisite, course 1 or 3 or 3a. 9:30-10:20. Posey.

†159. FIELD GEOLOGY. Five hours credit. A six weeks' field course devoted to the study of geology and physiography of parts of Kansas, Colorado, or other selected area. Prerequisite, Geology 11. Registration only after consultation with the department. By appointment. Fee, $10. Landes.

NOTE.—This course will be given at the Geology Camp near Canon City, Colo., June 11-July 19. A minimum enrollment of ten students is required.

‡359. REGIONAL FIELD GEOLOGY. Five hours credit. Study of carefully selected areas in western United States showing features of geologic structure, physiographic processes, stratigraphic relationships and economic significance. Prerequisite, course 159 or equivalent. Registration only with approval of department. July 26-August 30. A minimum enrollment of eight students is required. Fee, $10. Moore.

HISTORY

Professors: PATTERSON, REALEY
Instructor: PAULLIN

3. MODERN EUROPE. Five hours credit. A survey of the "making of modern Europe" from the Reformation to the World War. 7:30-9:20. Realey.

150. GREEK HISTORY. Three hours credit. Political and intellectual development and social and economic changes. 8:30-9:20. Patterson.

152. MEDIEVAL INSTITUTIONS AND THE NATIONAL STATE. Three hours credit. The growth of political and ecclesiastical institutions during the feudal period, the organization of society in the twelfth and thirteenth centuries, and the rise of the national state. 9:30-10:20. Patterson.

161. THE BRITISH EMPIRE. Three hours credit. A survey of the development of the overseas empire. 9:30-10:20. Realey.

168. LATIN AMERICA. Two hours credit. Spanish and Portuguese conquest and colonization in America; the Colonial system; the rise and progress of the Latin American states. 10:30-11:20. Patterson.

180. THE AMERICAN COLONIES AND THE REVOLUTION. Three hours credit. European voyages of exploration; the origin and development of European colonies north of Mexico; the cause, progress, and outcome of the American Revolution. 7:30-8:20. Paullin.

181. THE UNITED STATES, 1783-1829. Three hours credit. The social and political history of the American Nation from the close of the Revolution to the emergence of the new democracy under Andrew Jackson. 11:30-12:20. Paullin.

306. SEMINAR IN AMERICAN HISTORY. Two hours credit. Research work upon special topics. By appointment. Paullin.

† Courses 11 and 159 will be offered only if 10 or more students enroll in each course.

‡ Course 359 will be offered only if eight or more students enroll.

JOURNALISM

Professor: FLINT
Instructor: HEADY

†162. MAGAZINE WRITING. Three hours credit. Intensive study of major types of magazine articles, as to nature, source of material, and variety of treatment. Brief survey of the growth of the magazines in England and America, and of the market offered by leading magazines. Class discussions and personal conferences on manuscript. Prerequisite, adequate preparation in English. 9:30-10:20. Flint.

†180. ELEMENTS OF ADVERTISING. Three hours credit. A survey, descriptive and historical, of the whole field of advertising. A study of the functions of advertising and its organization as a business. Designed for students interested in any line of business, as well as for those intending to continue the study of advertising itself. Economics 1 or 5 and Marketing are recommended as prerequisites. 11:30-12:20. Flint.

†193. HISTORY OF AMERICAN JOURNALISM. Three hours credit. A historical survey of American journalism; the subject is related to technical and other developments within the newspaper industry and to economic, political, and other tendencies in American society. 10:30-11:20. A minimum enrollment of eight students is required. Heady.

300 or 305. SEMINAR. Two hours credit. A research course for students having the necessary preparation to enter a specialized field of original investigation. By appointment. Flint.

310. THESIS. Three to five hours credit. By appointment. Flint.

LAW

Professors: MOREAU, DAVIS, SMITH, TUPY

FIRST TERM—June 11 to July 12

‡CONTRACTS. Three hours credit. Offer and acceptance; consideration; contracts under seal; conditions precedent and subsequent; damages for breach; discharge; third party beneficiaries; assignments; illegal contracts; the statute of frauds. Corbin's Cases, second edition. 7:30-9:00, M. T. W. Th. F. Davis.

‡AGENCY. One hour credit. The agency relation; formation; termination; irrevocable agencies; obligations of the parties; relationship of principal and third persons, including the undisclosed principal doctrine; relationship of agent and third persons, including implied warranty of authority, and liability of agent as varied by the form of signiture. Steffens' Cases on Agency. 11:00-12:00, M. W. F. Tupy.

‡INSURANCE. Two hours credit. The theory of insurance with reference to fire, marine, accident and life risks; the legal relation of the parties to the insurance contract examined historically and critically, with a view to developing the fundamental principles of the contract and the law merchant underlying it; interpretation and construction of the standard policies. Patterson's Cases on Insurance. 7:30-8:30, M. T. W. Th. F. Tupy.

ADMINISTRATIVE LAW. Three hours credit. The separation and delegation of powers. The development of administrative function. Administrative discretion, notice, hearing, jurisdiction, conclusiveness of determination, and judicial control. Casebook to be announced. 9:00-10:30, M. T. W. Th. F. Smith.

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† Course will be offered only if eight or more students enroll.

‡ These courses continue through both terms.

‡Creditor's Rights. Two hours credit. This course deals with the remedies of creditors. The topics considered include the enforcement of judgments; attachment and garnishment; fraudulent conveyances; general assignments; creditors' agreements; receivership, including reorganization; the usual bankruptcy problems, including the adjudication, acts of bankruptcy, trustee problems, provable claims, exemption and discharge. Hanna's Cases on Creditor's Rights, second edition. 11:00-12:00, M. T. W. Th. F. Moreau.

Second Term—July 14 to August 16

‡Contracts. Three hours credit. A continuation of the course started during the first term. 7:30-9:00, M. T. W. Th. F. Davis.

‡Agency. Two hours credit. A continuation of the course started during the first term. 11:00-12:00, M. T. W. Th. F. Tupy.

‡Insurance. One hour credit. A continuation of the course started during the first term. 7:30-8:30, M. W. F. Tupy.

Public Service Law. Three hours credit. Duty of public service; the service to be rendered; reënactment of rules governing service; rates and rate making; discrimination in rates and service; adequacy of facilities; withdrawal. Smith and Dowling's Cases, second edition. 9:00-10:30, M. T. W. Th. F. Smith.

‡ Creditor's Rights. One hour credit. A continuation of the course started during the first term. 11:00-12:00, M. W. F. Moreau.

MATHEMATICS

Professor: SMITH
Associate Professors: WHEELER, BABCOCK
Assistant Professor: ULMER

†2a. College Algebra. Three hours credit. Open only to students presenting one and one-half units of algebra for entrance, except on special permission from the department. 7:30-8:20. Wheeler.

†2b. College Algebra. Five hours credit. Intended for students who have entered with only one unit of algebra. It may also be taken by students offering one and one-half units of algebra for entrance, but for such students it will give only three hours credit. 7:30-9:20. Wheeler.

152. Advanced Calculus. Three hours credit. Critical review of the fundamental notions of calculus; multiple integrals; applications to geometry and physics. Prerequisite, course 7. 7:30-8:20. Babcock.

153. Modern Analytical Geometry. Two hours credit. Point and line coordinates, abridged notation, reciprocal polars and central projection. Prerequisite, course 7. 9:30-10:20. Smith.

164. Field Work in Mathematics. Two hours credit. A course designed to acquaint teachers with a large number of practical applications of mathematics which can be used to enrich high school courses. The work includes the practical use of the transit, sextant, level, plane table, angle mirror, clinometer and hypsometer in connection with simple exercises in surveying, leveling, map-making and other problems involving indirect measurement. Approximate computation and the use of the slide rule and computing machines are considered. Prerequisite, course 7 or 3 and experience in high school teaching of mathematics. 11:30-12:20. Ulmer.

303. Seminar. One or two hours credit. By appointment. Smith.

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‡ These courses continue through both terms.

† Courses 2a and 2b will be offered only if the combined enrollment is 10 or more.

307. HIGHER ALGEBRA. Two hours credit. Selected topics in Bocher's Introduction to Higher Algebra. 8:30-9:20. Babcock.

320. PARTIAL DIFFERENTIAL EQUATIONS. Two hours credit. A study of partial differential equations, especially those arising in Physics and Engineering. 11:30-12:20. Smith.

MEDICINE

Professors: CALKINS, GIBSON, HASHINGER, ISENBERGER, NEFF, ORR, MAJOR
Assistant Professors: WALKER, WEBER
Associate: DELP

All courses are offered at the Kansas City division of the School of Medicine.

MEDICINE

72. PHYSICAL DIAGNOSIS. Two hours credit. Lectures and recitations. By appointment. Hashinger.

82. PHYSICAL DIAGNOSIS. Three hours credit. Entire class meets daily in the dispensary, where instruction is given in physical diagnosis, the student taking case histories and making the examinations under supervision. By appointment. Hashinger, Delp.

92. MEDICAL CLINICAL COURSE. Three hours credit. The entire class meets daily for clinical ward rounds and group demonstration of therapeutic procedures. Students are assigned to patients. Major and staff.

283. CLINICAL PATHOLOGY. Two hours credit. Students are trained in the technique of examining sputa, gastric contents, urine, feces, puncture fluids, and blood. By appointment. Weber.

NEUROLOGY

92. PSYCHIATRY—PRACTICAL WORK. One hour credit. In the out-patient department and wards. Students are assigned to instructors in the clinic where they assist in history taking and the examination of patients. Gibson and staff.

OBSTETRICS

71. PHYSIOLOGICAL OBSTETRICS. Two hours credit. Lectures and recitations. By appointment. Calkins.

81c. CLINICS IN OBSTETRICS. No credit. Demonstrations of parturitions in the hospital. By appointment. Calkins.

PATHOLOGY

271. GENERAL PATHOLOGY. Eight hours credit. Gross morbid anatomy and pathological histology and immunology, including practical work in autopsy and histologic technique. By appointment. Walker.

282. SPECIAL PATHOLOGY—AUTOPSY TECHNIQUE. Two hours credit. Performance of autopsies by individual students under supervision, with class discussion of findings as correlated with the clinical histories. Special emphasis is placed upon the gross morbid changes, the disturbances of function and the fundamental chemical processes underlying the pathologic processes under discussion. By appointment. Walker.

PEDIATRICS

92. PEDIATRICS. One hour credit. Neff and staff.

(*a*). WARD ROUNDS AND CLERKSHIP. Ward rounds, practical work in pediatric dietaries, pediatric technic, examination of the newly born. Records required. Immunization, contagious diseases in isolation department of Kansas City General Hospital.

(*b*). DISPENSARY. Work in small groups in history taking, examination, physical diagnosis and treatment of assigned cases from pediatric out-patient department of the University of Kansas hospitals. Practical work in selection in infant foods. Well baby clinic; periodic examination by instructor and group of students, of babies born in the hospital and out-patient obstetric service.

PHARMACOLOGY

272. PHARMACODYNAMICS AND MATERIA MEDICA. Six hours credit. The source, composition, physical and chemical properties, pharmacologic actions, uses, dose, and methods of administration of drugs. Pharmacologic and physiologic principles of treatment. Basis of prescription writing. Required of second-year medical students. By appointment. Prerequisites—Physiology 170 and 271. Isenberger.

SURGERY

82. CLINICAL SURGERY. One hour credit. Clinical diagnosis held in the out-patient department in small groups. By appointment. Orr.

92. SURGICAL CLINICAL COURSE. Four hours credit. Students are assigned patients, and attend surgical clinics, ward rounds, and dispensary. This course includes surgery, orthopedics, urology, otorhinolaryngology, and ophthalmology. Orr and staff.

MUSIC

Professors: SWARTHOUT, SKILTON, TAYLOR, ANDERSON, GELTCH, MIESSNER, WILKINS, MONCRIEFF, KUERSTEINER
Associate Professors: MOORE, WILEY, PEABODY, ORCUTT, CONGER
Assistant Professors: STUHL, GASTON
Instructor: CASS
Visiting Instructor: LAWSON

For courses in Methods of Teaching Music in the primary and intermediate grades, and in Junior and Senior High Schools, see Education.

BAND AND ORCHESTRA

SUMMER SESSION BAND. One hour credit. By appointment. Wiley.

SUMMER SESSION ORCHESTRA. One hour credit. By appointment. Lawson.

CHORUS

A CAPPELLA CHOIR. One-half hour credit. 4:30-5:20. Swarthout.

165. CHORAL REPERTOIRE AND ADVANCED CONDUCTING. Two hours credit. Prerequisite, a year of conducting. Choral experience recommended. A study of problems of the choral conductor with interpretative analysis of numbers in secular and sacred choral literature and with emphasis on problems in *a cappella* singing. 9:30-10:20. Swarthout.

ENSEMBLE

29. STRING ENSEMBLE I. One hour credit. The study of compositions for strings and piano. Compositions for two violins and piano by Purcell, Handel, and Bach. Sonatas by Schubert, Dvorak, and Mozart. By appointment. Geltch.

30. STRING ENSEMBLE II. One hour credit. Continuation of 29. Sonatas by Mozart, Beethoven, and Grieg. By appointment. Geltch.

59. STRING ENSEMBLE III. One hour credit. The study of larger forms of composition. Continuation of sonatas by Beethoven, Brahms, Franck, Debussy. Trios by Haydn and Mozart; string quartets by Haydn, Mozart, and Schubert. By appointment. Geltch.

60. String Ensemble IV. One hour credit. Continuation of 59. Trios by Haydn, Mozart, Beethoven and more modern composers. String quartets by Mendelssohn, Grieg, and Beethoven. By appointment. Geltch.

HISTORY OF MUSIC

71. History of Music I. Three hours credit. Haydn, Gluck, Mozart; close of classical period; nineteenth century romanticism and national schools; music of the twentieth century; modern trends in music. 10:30-11:20. Skilton.

341 and 342. History of Music. Three hours credit. Seminar and research, along special lines of development of musical forms, to be embodied in a comprehensive report. 11:30-12:20. Skilton.

MUSICAL THEORY

‡6. Harmony II. Two hours credit. The study of close and open harmony, dominant ninth and diminished seventh chords, modulations. Practical work continued. 7:30-8:20. Cass.

‡6a. Keyboard Harmony II. One hour credit. Practical work at the piano of materials covered by class in Harmony 6. 8:30-9:20. Cass.

‡25. Harmony III. Two hours credit. The study of modulation, irregular resolutions, altered chords, suspensions, passing tones, organ point, harmonization of florid melodies. Practical work continued. 7:30-8:20. Cass.

‡25a. Keyboard Harmony III. One hour credit. Practical work at the piano of material covered by class in Harmony 25. 10:30-11:20. Cass.

156. Form and Analysis II. Two hours credit. Motive, phrase, section; binary and ternary forms; variations, sonata, symphony, large vocal forms; study of classical examples. 9:30-10:20. Skilton.

287. Instrumentation I. Two hours credit. The nature and treatment of different instruments of the orchestra. The overture, symphony, cantata. Practical work for the University orchestra. 11:30-12:20. Anderson.

288. Instrumentation II. Two hours credit. Continuation of 287. 11:30-12:20. Anderson.

387. Instrumentation. Three hours credit. Degree candidates must score a complete program for full orchestra. Open to music graduates of the School of Fine Arts, or of other schools requiring a corresponding amount of work. 8:30-9:20. Anderson.

PUBLIC SCHOOL MUSIC

Professor: MIESSNER
Associate Professor: WILEY
Assistant Professors: STUHL, GASTON

†15. Orchestral Instruments—Strings. Two hours credit. A study of the instruments comprising the string section of the orchestra, such as the violin, viola, violoncello, and contrabass, including practical experience in playing these instruments both in their individual and ensemble capacities. The principles governing correct methods of fingering, bowing, and phrasing are presented in class. While a general knowledge of the different instruments is the principal objective, each student is encouraged to acquire some proficiency on at least one instrument of this section. Rental fee, $6. By appointment. Stuhl.

†16. Orchestral and Band Instruments—Woodwind. Two hours credit. A study of the instruments comprising the woodwind section of the orchestra,

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‡ If fewer than eight persons enroll in 6, 6a, 25 or 25a, the course will be offered on the private lesson fee basis, the students dividing the cost. The total cost will be $16 for a one-hour course, or $32 for a two-hour course.

such as the flute, clarinet, oboe, bassoon, etc., including practical experience in playing these instruments both in their individual and ensemble capacities. The principles governing correct embouchures, tonguing, and phrasing are presented in class. While a general knowledge of the different instruments is the principal objective, each student is encouraged to acquire some proficiency on at least one instrument of this section. Rental fee, $6. 9:30-10:20.
Wiley.

†36. Orchestral and Band Instruments—Brass and Percussion. Two hours credit. A study of the instruments comprising the brass and percussion sections of the orchestra, such as the trumpet, cornet, French horn, trombone, tuba, tympani, drums, etc., including practical experience in playing these instruments both in their individual and ensemble capacities. The principles governing correct embouchures, tonguing, and phrasing are presented in class. While a general knowledge of the different instruments is the principal objective, each student is encouraged to acquire some proficiency on at least one instrument of this section. Rental fee, $6, 10:30-11:20. Wiley.

169. Band and Orchestra Methods and Administration. Two hours credit. Course covers in a practical way many phases of the work required in the development of the school band and orchestra. Lectures by guest conductors on such subjects as Developing and Marching Band, Classroom Procedure, Interpretations, Repertoire of the Modern School Band, Developing Ensembles within the Band and Orchestra. These points are brought out in a more practical way through the summer band and orchestra. 1:30-2:20.
Wiley and assistants.

313. The Organization of School Music. Three hours credit. A study of school music with special reference to educational psychology and recent trends in organization and procedure. Criteria for the evaluation of activities, courses, materials and methods with due consideration to a well-balanced program in music. 10:30-11:20. Miessner.

314. Civic Music. Three hours credit. Inquiries into the cultural needs of communities confronted with the new era of leisure. The extension of the music of the schools into the social life of the home, the church, and the club. The possibilities of adult education in purposive listening and in performance. The organization, conduct, and management of community bands, orchestras, glee clubs, choral societies, opera guilds, pageants, and music festivals. 8:30-9:20. Gaston.

323-4. Seminar. Two hours credit. By appointment. Miessner, Gaston.

Thesis. One to four hours credit. By appointment. Staff.

SIGHT SINGING AND EAR TRAINING

Assistant Professor: STUHL
Instructor: CASS

Required of all music students in the courses leading to certificate and degree. Textbook: "Ear Training and Sight Singing," by George A. Wedge.

‡2. Sight Singing and Ear Training II. One hour credit. Study of melodic intervals, and melodies in major and minor modes. Dictation exercises will be given to develop ability to think tones and write melodies from hearing them played and sung. 8:30-9:20. Cass.

‡21. Sight Singing and Ear Training III. One hour credit. Study of intervals and chords and more advanced melodies. Three- and four-part songs to be sung with correct rhythm and observance of musical markings. Dictation

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† If fewer than eight persons enroll in courses 15, 16 or 36 the course will be offered on a private lesson fee basis, the cost being divided between the students. The total cost will be $16 for a one-hour course, or $32 for a two-hour course.

‡ If fewer than eight persons enroll in 2 or 21, the course will be offered on a private lesson fee basis, the cost being divided among students enrolled. The total cost will be $16 per course.

exercises to develop ability to think harmonic intervals and to write two-, three-, and four-part songs from hearing them played or sung. 11:30-12:20. Stuhl.

ORGAN

Professor: ANDERSON

0. ORGAN. For special students according to individual needs. No credit. Anderson.

11. ORGAN I. One to three hours credit. Manual and pedal studies; hymn playing; elementary registration; eight short preludes and fugues of Bach; Rheinberger trios; easier slow movements and miscellaneous shorter pieces. Anderson.

12. ORGAN II. One to three hours credit. Continuation of course 11. Anderson.

31. ORGAN III. One to three hours credit. Continuation of the study of the Bach repertoire; sonatas of Mendelssohn, etc.; shorter contemporary works. Anderson.

32. ORGAN IV. One to three hours credit. Continuation of course 3. Anderson.

161. ORGAN V. One to three hours credit. The larger organ works of Bach; representative works of Guilmant, Franck, and the various national schools. Anderson.

162. ORGAN VI. One to three hours credit. Continuation of course 161. Anderson.

291. ORGAN VII. One to three hours credit. Work from the pre-Bach repertoire; the more advanced works of Bach; the symphonies of Widor, Vierne, etc.; modern works from the leading national schools; preparation of material for public recital. Anderson.

292. ORGAN VIII. One to three hours credit. Continuation of course 291. Anderson.

311. ORGAN. One to three hours credit. Advanced work; for graduate students only. Applicants for admission must pass an entrance examination before the music faculty to determine their fitness to do graduate work. Anderson.

312. ORGAN. One to three hours credit. Continuation of 311. Upon completion of this course the candidate for the degree Master of Music must give evidence through a public recital of having satisfied the requirements for the degree. Anderson.

PIANOFORTE

Professors: SWARTHOUT, TAYLOR
Associate Professors: ORCUTT, CONGER

0. PIANO I. For special students according to individual needs. No credit. Staff.

11. PIANO I. One to three hours credit. Hanon; Virtuoso Pianist. A limited number of studies from the following: Hoffman, Etudes for the Left Hand; Cramer-Buelow, Sixty Selected Etudes; Preyer, Twenty Etudes, op. 25 (Schirmer); Bach, two-part inventions (Litolff, No. 52), etc. Sonatas by Haydn, Mozart, Beethoven. Selections from classic and modern compositions. Staff.

12. PIANO II. One to three hours credit. Continuation of 11. Staff.

31. PIANO III. One to three hours credit. Pischna; Technical Exercises. Etudes, selected according to the needs of the pupil, from Jensen, op. 32; MacDowell, op. 39; Haberbier, Etudes Poesies, op. 53; Preyer, op. 30 and op. 45;

Hollaender, Intermezzi for Left Hand; Bach, three-part inventions. Concertos by Mozart, Hummel, etc. Selections from classic and modern compositions. Staff.

32. PIANO IV. One to three hours credit. Continuation of 31. Staff.

161. PIANO V. One to three hours credit. Philipp; Daily Exercises. Clementi's Gradus ad Parnassum; Etudes from Moscheles, op. 70; Seeling. Concert Etudes, op. 10; Chopin, Preludes; Bach, Well-tempered Clavichord; Concertos by Beethoven, Mendelssohn, etc.; concert pieces by classic and modern composers. Staff.

162. PIANO VI. One to three hours credit. Continuation of 161.

291. PIANO VII. One to three hours credit. Joseffy: School of Advanced Piano Playing. Philipp, Etudes for the Left Hand; Etudes of Chopin, op. 10 and op. 25; Rubinstein, op. 23, etc. Sonatas and concertos by Beethoven, Weber, Grieg, etc. Concert pieces by modern composers. Staff.

292. PIANO VIII. One to three hours credit. Continuation of 291.

311. PIANO. One to three hours credit. Etudes of Philipp, Liszt, MacDowell, and others; transcriptions of Bach's organ fugues by Liszt, Tausig, Busoni; modern concert pieces and concertos. Open only to piano graduates of the School of Fine Arts, or of other schools requiring a corresponding amount of work. Applicants for admission must pass an entrance examination before the Fine Arts music faculty to determine their fitness to do graduate work. Staff.

312. PIANO. One to three hours credit. Continuation of 311. Upon completion of this course the candidate for the degree of Master of Music must give evidence through a public recital of having satisfied the requirements for the degree. Staff.

VIOLIN

Professors: GELTCH, KUERSTEINER

0. VIOLIN. For special students according to individual needs. No credit. Geltch, Kuersteiner.

11. VIOLIN I. One to three hours credit. Selected studies by Sevick, David, scales and Arpeggio Studies in two and three octaves. Special technical studies for the bow and left hand; development of the trill. Kreutzer, Forty-two Etudes; selected solos. Concertos by Viotti and De Beriot. Geltch, Kuersteiner.

12. VIOLIN II. One to three hours credit. Continuation of 11. Geltch, Kuersteiner.

31. VIOLIN III. One to three hours credit. Technical Studies by Sevick, David, Sauret, Flesch. Scales and arpeggios. Kreutzer studies, continued. Sonatas, concertos and selected compositions of Bach, Handel, Corelli, Beethoven, Mozart, De Beriot, Viotti, Rode, Wieniawski, Kreutzer, Kreisler. Ensemble playing. Geltch, Kuersteiner.

32. VIOLIN IV. One to three hours credit. Continuation of 31. Geltch, Kuersteiner.

65 and 66. VIOLIN TEACHING MATERIALS I AND II. One hour credit. Throughout the year. A study of the teaching materials and methods for violin. Each student required to keep a notebook. Open to all students, but freshmen, and to advanced special students. Required of all candidates for the Bachelor of Music degree and the three-year teachers' certificate in violin. Geltch.

91 and 92. VIOLIN TEACHING MATERIALS III AND IV. Continuation of 65 and 66. Geltch.

161. VIOLIN V. One to three hours credit. Technical studies, continued. Fiorillo Etudes. Selections from compositions of Wieniawski, Leonard, Hubay, Sarasate, Vieuxtemps, Kreisler. Concertos by Bach, Wieniawski, Spohr, etc. Ensemble playing. Geltch, Kuersteiner.

162. VIOLIN VI. One to three hours credit. Continuation of 161. Geltch, Kuersteiner.

291. VIOLIN VII. One to three hours credit. Technical studies continued. Rode's Twenty-four Studies. Bach sonatas. Compositions of Handel, Tartini, Ernst, Wieniawski, Vieuxtemps, etc. Concertos by Mendelssohn, Bruch, Vieuxtemps, etc. Geltch, Kuersteiner.

292. VIOLIN VIII. One to three hours credit. Continuation of 291. Geltch, Kuersteiner.

311. VIOLIN. One to three hours credit. Paganini caprices, sonatas by Bach, concertos by Beethoven, Brahms, Dvorak, Tchaikovsky and others. Open only to violin graduates of the School of Fine Arts or of other schools requiring a corresponding amount of work. Applicants for admission must pass an entrance examination before the Fine Arts music faculty to determine their fitness to do graduate work. Geltch.

312. VIOLIN. One to three hours credit. Continuation of 311. Upon completion of this course the candidate for the degree Master of Music must give evidence through a public recital of having satisfied the requirements for the degree. Geltch.

VOICE

Professors: WILKINS, MONCRIEFF
Associate Professors: MOORE, PEABODY

0. VOICE. For special students according to individual needs. No credit. Staff.

11. VOICE I. One to two hours credit. A study of the fundamental principles of breathing, breath control and of tone production; proper use of the organs of articulation; correct pronunciation; physical and mental poise; technical exercises from the masters of vocalization suitable to the individual's need; simple English and Italian songs. Staff.

12. VOICE II. One to two hours credit. Continuation of 11. Staff.

31. VOICE III. One to two hours credit. More advanced technique, introducing a greater number of exercises for flexibility and extension; English, Italian and German songs, emphasizing the Italian classics of the *bel canto* period; simple songs of Handel, Schubert, Schumann, and Franz, and other songs representative of the same periods and styles. Staff.

32. VOICE IV. One to two hours credit. Continuation of 31. Staff.

161. VOICE V. One to two hours credit. Studies in velocity and maximum flexibility; chromatic scales, embellishments generally used and the trill; additional English and German songs; selections from opera and oratorio; modern Italian and French songs. Staff.

162. VOICE VI. One to two hours credit. Continuation of 161. Staff.

291. VOICE VII. One to two hours credit. A general amplification of the work of the preceding years with added emphasis on style and interpretation; a study of the more difficult classic, romantic, and modern song literature; frequent public appearances terminating with a graduating recital. Staff.

292. VOICE VIII. One to two hours credit. Continuation of 291. Staff.

311. VOICE. One to two hours credit. Modern French, Russian, German, Italian, English and American song literature; the more difficult operatic and oratorio arias; a singing knowledge of at least one complete opera role, and

one standard oratorio role. Open only to vocal graduates of the School of Fine Arts or of other schools requiring a corresponding amount of work. Applicants for admission must pass an entrance examination before the Fine Arts music faculty to determine their fitness to do graduate work. Staff.

312. Voice. One to two hours credit. Continuation of 311. Upon completion of this course the candidate for the degree Master of Music must give evidence through a public recital of having satisfied the requirements for the degree. Staff.

VIOLONCELLO

A detailed outline of the four-year course leading to the B. M. degree will be furnished upon request.

Violoncello. One to three hours credit. By appointment. Stuhl.

Piano, Voice, Violin, Violoncello, Organ

Courses in piano, voice, violin, violoncello, and organ are offered by the Department of Music, with the following credits in the School of Fine Arts. No credit will be allowed for less than two lessons and eight hours practice each week. Additional credit may be had for additional practice by consulting Dean Swarthout.

Piano. One hour credit for two lessons and eight hours practice each week.

Voice. One hour credit for two lessons and eight hours practice each week.

Violin. One hour credit for two lessons and eight hours practice each week.

Cello. One hour credit for two lessons and eight hours practice each week.

Organ. One hour credit for two lessons and eight hours practice each week.

College students may secure professional credit for work in piano, voice, violin, and organ. For the new Liberal Arts curriculum see General Catalogue.

Tuition Rates for Private Lessons

All Summer Session students paying regular Summer Session fees may take without extra charge any of the music courses, taught in classes, for which they are prepared.

Rates for Regular Students†

The rates listed below apply to private music lessons of students enrolled in four or more hours of University work, including music courses, and are in addition to the incidental fee.

FIRST AND SECOND YEARS

Private lessons:	*Two a wk.*	*One a wk.*
Piano with Dean Swarthout or Professor Taylor	$22.00	$12.00
with Professors Conger or Orcutt	16.00	9.00
Voice with Professors Wilkins or Moncrieff	22.00	12.00
with Professors Moore or Peabody	16.00	9.00
Organ with Professors Skilton or Anderson	22.00	12.00
Violin with Professors Geltch or Kuersteiner	16.00	9.00
Violoncello with Professor Stuhl	16.00	9.00
Band Instruments	16.00	9.00

THIRD AND FOURTH YEARS

Piano, Voice, Violin, or Organ	$22.00	$12.00
Violoncello	16.00	9.00
Band Instruments	16.00	9.00

† Fees subject to change without notice.

RATES FOR PART-TIME STUDENTS†

The rates listed below apply to students enrolled in three or less hours, including the music lessons, and are in addition to the part-time incidental fee.

Piano with Dean Swarthout or Professor Taylor	$30.00	$17.00
with Professors Conger or Orcutt	17.00	9.00
Organ with Professors Skilton or Anderson	30.00	17.00
Voice with Professors Wilkins or Moncrieff	30.00	17.00
with Professors Moore or Peabody	17.00	9.00
Violin with Professors Geltch or Kuersteiner	17.00	9.00
Violoncello with Professor Stuhl	17.00	9.00
Band Instruments	17.00	9.00

RENTALS

	Daily practice		
	1 hr.	*2 hrs.*	*3 hrs.*
Piano—daily for the Summer Session	$2.25	$4.00	$6.00
Organ—daily for the Summer Session			
four-manual Austin organ in Auditorium	14.00	27.00	40.00
two-manual Reuter electric organ	9.00	17.00	24.00

Organs also for rent in certain churches of city by special arrangement.

SPECIAL STUDENTS

Special students in piano, voice, violin, or organ may be admitted to the Summer Session without credit by obtaining the permission of the dean of the School of Fine Arts and by paying the special fees stated above.

PHILOSOPHY

Associate Professor: OSBORNE

181. AESTHETICS. Three hours credit. A psychological and philosophical examination of the nature of the beautiful. The beauty of nature as well as the fine arts will be analyzed and its significance determined. 9:30-10:20.
Osborne.

184. ETHICS OF GOVERNMENT. Two hours credit. This course is similar in character and purpose to course 183, with the substitution of questions of politics and government for questions of economics. Primarily for seniors and graduates. Prerequisites, a course in philosophy (except Logic), and a course in political science taken in the College or high school. 11:30-12:20.
Osborne.

PHYSICAL EDUCATION

Professor: ALLEN
Associate Professor: ELBEL

100. PRINCIPLES OF COMMUNITY RECREATION. Three hours credit. This course is planned for students interested in recreational leadership, in playgrounds, community and recreational organizations and activities of clubs, such as Camp Fire Girls, Girl Scouts, Boy Scouts, and in the organization, management and equipment of conducting social activities, games, play, etc., with adult groups in community recreation centers. Prerequisite, three hours of general sociology and ten hours of physical education. Required of all men majors, elective for women. 9:30-10:20. Allen.

NOTE.—One of the following two courses will be offered, depending upon student demand. Early indication of choice, by mail or personally, to the department is desirable.

176. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION. Three hours credit. Actual practice with tests and their administration is provided. The aim of the course is to give a practical approach to testing and to provide an

† Fees subject to change without notice.

adequate testing and grading program in the public schools. The following types of tests will be studied: Strength tests, cardiac tests, posture rating scales, means of classification, sport tests, motor ability tests, knowledge tests, etc. Anthropometric measurements, test construction and scoring methods will also be studied. The material will be presented through outside readings, lectures and laboratory work. 9:30-10:20. Elbel.

M194. Content and Methods of Physical Education. Three hours credit. See Education.

200. The Theory and Practice of Athletic Training. Three hours credit. Principles underlying the conditioning, nutrition, care and emergency treatment employed in the training of athletes. Prerequisites, 20 hours of physical education, and one five-hour course of anatomy or physiology. 10:30-11:20. Allen.

300. Special Problems in Physical Education. Two to four hours credit. This course provides for graduate students opportunity for individual or group study of special fields in physical education. Each student will present the results of his work in the form of class reports and term papers. Prerequisite, 15 hours of physical education. By appointment. Elbel.

39. Elementary ~~School~~ Playground activities - Sams

PHYSICS AND ASTRONOMY

Professor: KESTER
Associate Professors: RICE, STORER

PHYSICS

3. An Introduction to Physics. Five hours credit. A course developed especially for the college student seeking a general knowledge of physics as it applies to our everyday living and thinking. Material will be drawn from the fields of mechanics, heat, sound, light and electricity. Fundamental concepts will be developed through lectures and class discussions, accompanied by a large number of experimental demonstrations, and through assigned library reading. Opportunity will be given students to handle demonstration apparatus. No formal laboratory accompanies the course. Prerequisites, one year each of high school algebra and geometry. 7:30-9:20. Kester.

Note.—Course 3 is not designed to give the student majoring in a physical science the necessary preparation in physics. If the student wishes to complete such preparation, he should continue with course 4. Courses 3 and 4 together satisfy the 10 hour general physics requirement held as a prerequisite for all advanced courses in this department and for many courses in other departments.

7b. General Physics II. Electricity and light. Five hours credit. Four-hour class, one period laboratory. A continuation of course 7a. Fee, $1.50. 7:30-9:20. Rice.

70. Special Problems in Physics. One to three hours credit in the College. Prerequisite, a year's work in advanced undergraduate physics. Laboratory fee, $1.50 per credit hour. By appointment. Staff.

156a. Electrical Measurements I. One to two hours credit. Direct-current measurements. Prerequisite, a year's work in general physics; some use is made of calculus. Fee, $1.50 per credit hour. By appointment. Rice.

156b. Electrical Measurements II. One to two hours credit. Alternating-current measurements. Prerequisite, course 156a or its equivalent. Fee, $1.50 per credit hour. By appointment. Rice.

163. Physics Colloquium. One hour credit. The members and the advanced students of the department meet once a week to report on researches published in journals of the science or on the progress of original investigations carried on by members of the colloquium. Four hours maximum undergraduate credit. By appointment. Staff.

307. RESEARCH AND THESIS. Two to eight hours credit. Graduate students who are carrying on original investigations (either experimental or theoretical) in physics will enroll in this course. Fee, $1.50 per credit hour. By appointment. Staff.

NOTE.—One of the following two courses will be offered, choice to be made on the basis of requests for the individual courses. Early indication of choice, by mail or personally, to the department is requested.

150. MECHANICS. Three hours credit. Lectures and recitations. Prerequisite, a year's work in general physics and calculus. By appointment. Kester.

311. KINETIC THEORY OF GASES. Two hours credit. Maxwell's law of distribution of molecular velocities. Boltzmann's H-theorem, statistical relation between entropy and probability. Calculation of thermal conductivities and of coefficients of viscosity. Prerequisites, a year's work in general physics and 10 hours in junior-senior courses in physics and mathematics. By appointment. Kester.

NOTE.—One of the following two courses will be offered, choice to be made on the basis of requests made to the department.

151. LIGHT THEORY AND OPTICAL INSTRUMENTS. Three hours credit. Prerequisite, a year's work in general physics and calculus. By appointment. Rice.

152. ELECTRICITY. Three hours credit. Lectures, recitations, and problems. Prerequisite, a year's work in general physics and calculus. By appointment. Rice.

ASTRONOMY

12. DESCRIPTIVE ASTRONOMY. Three hours credit. This course aims to provide an appreciative familiarity with the sky and its seasonal changes, and to give a cultural treatment of the historical development of modern views of the astronomical universe. Two lectures and one discussion or evening observing period. (Cannot be used to meet laboratory course requirements in Division II except in conjunction with course 13.) Prerequisites, one year each of high school algebra and geometry. By appointment. Storer.

PHYSIOLOGY

Professor: STOLAND
Associate Professor: WOODARD
Assistant Professor: WALLING

50. HUMAN PHYSIOLOGY. Three hours credit. Lectures, recitations and demonstrations. A course intended for students not majoring in science departments who desire some knowledge of physiology as a part of their general education. Not open to students who have credit for Physiology 1. 11:30-12:20. Walling.

170. PHYSIOLOGY. Five hours credit. Muscle, nerve, autonomic nervous system, blood, circulation, respiration and digestive system. One hundred twenty hours, laboratory and recitation. Fee, $20. Required of first-year medical students. 7:30-11:20. Stoland.

271. PHYSIOLOGY. Five hours credit. Absorption, metabolism, internal secretion, excretion, temperature regulation, central nervous system, and special senses. One hundred twenty hours, laboratory and recitation. Fee, $20. Required of second-year medical students. 7:30-11:20. Woodard.

300. RESEARCH IN PHYSIOLOGY. Credit and hours by appointment. Stoland.

301. SEMINAR. One to two hours credit. A study of current literature dealing with physiological research. By appointment. Stoland, Woodard.

POLITICAL SCIENCE

Associate Professor: CHUBB
Assistant Professor: MADDOX
Instructor: GIBSON

*10. American Government. Three hours credit. A general survey of the entire field—national, state, and local. A systematic study of the development, structure and fundamental principles of American government. The objective is a comprehensive understanding of the practical operation of our government, and the relation to it of the individual citizen. 8:30-9:20. Maddox.

110. The American Constitution. Two hours credit. A study of the background and principles of the American constitutional system. Particular attention given to the development of our constitution and the major principles of constitutional interpretation and their relation to modern social and economic problems. Designed primarily for teachers of government in high schools. Prerequisite, two courses (at least six hours) in social science, including one course in American history or American government. Experience in teaching civics or constitution may be substituted for either of the courses named. 11:30-12:20. Maddox.

135. Current American Foreign Policy. Two hours credit. An analysis of the present policies of the United States with reference to the changing order in Europe, Asia, and the Western Hemisphere. Prerequisite, course 10 or one course in American History. 10:30-11:20. Chubb.

152. National Administration. Two hours credit. A survey of the duties to be fulfilled in the execution of the federal law, the powers of the President, and the function of the administrative departments and commissions established by congress. Prerequisite, course 10. 8:30-9:20. Chubb.

153. The Politics of Democracy. Three hours credit. A survey of the techniques and machinery by which political power is gained and used. The Hamiltonian versus the Jeffersonian tradition in American politics. Political parties; pressure groups; political machines. The mechanics of nominations and elections. Propaganda and campaign techniques. Politico-economic forces and the common man. Prerequisite, course 10. 9:30-10:20. Gibson.

164. International Relations. Three hours credit. A study of the relations between states based upon their political, economic and social life and dealings with one another. The methods of settling international disputes, the agencies of international organization and coöperation, and the manner in which foreign policies are determined are particularly stressed. Prerequisite, course 1 or 10. 7:30-8:20. Chubb.

304. Graduate Seminar. Two to five hours credit. Seminars will be conducted under the direction of the instructor, either in methods of governmental research or investigation of selected topics. By appointment. Staff.

306. Thesis. Two to five hours credit. Subject to be selected. By appointment. Staff.

PSYCHOLOGY

Professor: MORRISON
Assistant Professors: SARVIS, McCORD

*1. General Psychology. Five hours credit. Lecture and laboratory. A general survey of the fields of psychology, with a careful study of normal, human, adult behavior. Open only to sophomores. Fee, $2.50. Lecture, 7:30-8:20; laboratory, 8:30-10:20. Morrison.

*1a. General Psychology. Three hours credit. Lectures and recitations. The laboratory work of 1b cannot accompany this course. Students desiring laboratory work will enroll in course 1. However, if 1b is taken at some later time it may be combined with 1a to satisfy the elementary prerequisites for other courses in psychology. 7:30-8:20. Morrison.

*1b. General Psychology Laboratory. Two hours credit. Equivalent to the laboratory of course 1. Open only to students who have taken three hours in General Psychology. Fee, $2.50. 8:30-10:20. Morrison.

151. The Normal and Delinquent Child. Three hours credit. A consideration of the nature and course of development of human behavior in the light of recent psychological and biological experiment and theory. Applications are made to the training and discipline of normal children, and to the prevention and treatment of problem behavior and delinquency. Prerequisite, at least three hours of general psychology. Fee, $1. 8:30-9:20. Sarvis.

154. Abnormal Psychology. Three hours credit. An introduction to the facts and theories of abnormal behavior. The various theories of personality genesis, of the normal personality, of the psychoneuroses, the psychoses and the character defects are discussed. The implications of psychopathology for the "normal" personality are stressed throughout the course. Two lectures and one discussion each week. Prerequisite, at least three hours of general psychology. 10:30-11:20. McCord.

158. Psychology of Salesmanship and Advertising. Three hours credit. (Professional.) A study from the psychological point of view of the principles, problems and methods of personal selling and advertising. Practical applications are stressed. Prerequisite, at least three hours of general psychology. Fee, 50 cents. 9:30-10:20. Sarvis.

159. Psychology of Learning. Three hours credit. A study of the conditions and laws of learning. A critical examination of current methods, results, and theories. Applications to education are stressed. Prerequisite, at least three hours of general psychology. Fee, 50 cents. 7:30-8:20. McCord.

165. Psychological Clinic I. Two to three hours credit. Training in administering several types of psychological tests and in interpreting results, mainly from the clinical point of view. Prerequisites, at least three hours of general psychology and course 152, or with 152, and the consent of the instructor. Fee, $2. By appointment. Sarvis.

166. Psychological Clinic II. Two to three hours credit. Advanced training in giving psychological examinations. Under close supervision students handle cases that present psychological problems, as cases of school retardation, foster home placement, emotional disturbance, juvenile delinquency, etc. Prerequisite, course 165 and consent of the instructor. Fee, $2. By appointment. Sarvis.

168. Advanced Psychology. Two to three hours credit. Nonexperimental. Not over three hours at one time are advised. Total credit in courses 168 and 169 is limited to ten hours. Directed reading on selected topics of special interest to the individual student. Prerequisite, at least eight hours of psychology, including general psychology, and consent of the department. By appointment. Staff.

169. Advanced Psychology. Two to five hours credit. Experimental. Not over five hours at one time are advised. Total credit in 168 and 169 is limited to ten hours. Minor research by qualified students. Prerequisites, at least eleven hours of psychology, including general psychology, and consent of department. Fee, 50 cents per credit hour. By appointment. Staff.

304. Thesis in Psychology. Two to five hours credit. By appointment. Staff.

305. Special Topics. Two to five hours credit. Provides for the individual and group study of special topics by graduate students. By appointment. Staff.

ROMANCE LANGUAGES AND LITERATURE

Professor: SHOEMAKER
Assistant Professor: ELLIOTT

†1. Elementary Spanish. Five hours credit. The essentials of grammar. Careful drill in pronunciation; elementary composition and syntax; about 100 pages of easy reading; the beginnings of Spanish conversation. 7:30-9:20. A minimum enrollment of 10 is required. Elliott.

163. Nineteenth Century Drama. Three hours credit. A study of the more important dramatists from Moratin to Galdos. Lectures, readings and reports. Prerequisite, course 5. 9:30-10:20. Shoemaker.

300. Seminar. Three hours credit. For advanced students who satisfy the instructors of their preparation and ability to undertake problems of original research. Each student may pursue a chosen line of work with the approval of the department and under direction of its instructors. 10:30-11:20. Shoemaker.

311. Studies in Modern Spanish Literature. Two hours credit. The content of this course will vary from time to time. A student may secure credit for this course more than once, if there is no duplication of material. Lectures, readings, and reports. 8:30-9:20. Shoemaker.

314. Thesis. One to four hours credit. By appointment. Shoemaker.

SOCIOLOGY

Professor: ELDRIDGE
Associate Professors: SMITH, ELLIOTT
Instructor: GIBSON

*2. Social Pathology. Two hours credit. The disorganization of social groups, especially family, neighborhood, and community, and the concomitant personal demoralization, as involved in poverty, ill health, mental deficiency, delinquency, etc. Group study of special problems and visits to social agencies. 8:30-9:20. Elliott.

50. Elements of Sociology. Three hours credit. This course is designed to give the student an understanding of the structures and functions of social groups and institutions, with special emphasis on social interaction and its relation to personality and human behavior. Application of sociological concepts and social theory to current social problems such as race prejudice, war, migrations, divorce, poverty, and crime. The same as course 1, but with greater emphasis on sociological theory. Either 50 or 1 is prerequisite to other courses, except where otherwise specified. 9:30-10:20. Smith.

152. Rural Sociology. Two hours credit. Social organization and processes involved in open country and village community life. Rural-urban conflict and accommodation situations. Social change as affecting the culture, organization, and status of rural groups. 7:30-8:20. Smith.

161. Contemporary Civilization in the United States. Three hours credit. A critical survey of present-day social institutions, group interests, and cultural patterns of life as expressions of human needs and capacities. Movements and tendencies toward social reconstruction. The dynamics of social change and its control. Theories of American civilization and its advancement. 11:30-12:20. Eldridge.

169. Criminology. Three hours credit. This course aims at a critical examination of criminal statistics; the factors entering into criminal behavior; the treatment accorded criminals and the conflicting penal philosophies underlying such treatment; the types and methods of penal institutions, and possi-

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† Course 1 will be offered only if 10 or more students enroll.

ble preventive measures. Prerequisite, course 2, except for students in the School of Law who have had 1 or 50. Prelaw students may take courses 2 and 169 concurrently. 10:30-11:20. Elliott.

182. Personality Problems and Social Relations. Two hours credit. Influences of family, school, neighborhood and other associations on the formation of tastes and attitudes; social factors in the development of individual interests and life careers; relation of culture changes and conflict to personal crises and readjustments; problems accentuated by decline of older forms of institutional discipline; contributions of primary group and community to the treatment of personal problems. 9:30-10:20. Eldridge.

185. Social Conflict. Two hours credit. Theories of social conflict; biological, economic, cultural, and sociopsychological foundations of conflict; major conflict patterns, including war, revolution, industrial conflict, community conflict, conflict between racial, religious, political, and nationality groups; individual aspects of conflict; relation to social movements and culture change; techniques in resolution of social tension and control of conflict situations. 8:30-9:20. Gibson.

300. Seminar of Sociology. Two to five hours credit. A research course for advanced students. Each student may pursue a definite line of work under the direction of instructors; work in the seminar is directed along the line of general sociology and social theory. By appointment. Eldridge.

Thesis. Two to six hours credit. By appointment. Eldridge.

SPANISH

See Romance Languages and Literature.

SPEECH AND DRAMATIC ART

Assistant Professor: ANDERSON
Instructor: DIXON

*1. Principles of Speech. Two hours credit. Speech education; the study of tone, its production, placement, and quality; of distinct utterance and English diction; of correct and effective oral expression in the ordinary relationships of life. (1 is a prerequisite to all work in the department except 63, 151, 271, and 272.) 8:30-9:20 and 9:30-10:20. Anderson.

*2. Literary Interpretation. Two hours credit. An application of the principles of course 1 to the interpretation of literature; a study of the harmony of mood and thought as expressed through the medium of the voice; platform behavior; an endeavor to project thought and emotion to the audience and to establish a common enthusiasm between reader and listener. 10:30-11:20. Anderson.

*11. General Play Production. Three hours credit. Principles of production and stage interpretation; coördination of the work of directors, actors and stage workers in order to secure the complete stage production; play production in secondary schools; design as applied to directing and staging. (Prerequisite to courses 53, 154, 156.) 9:30-10:20. Dixon.

150. Speech Correction. Two hours credit. A study of the physiological aspects of speech production. This provides a basis for training in the diagnosis and treatment of speech difficulties caused by organic aspects, foreign and regional dialects, unpleasant voice quality, slovenly and indistinct articulation of sound units, and faulty pronunciation. Prerequisites, course 1 and the consent of the instructor. 11:30-12:20. Anderson.

154. Theory and Practice of Directing. Three hours credit. Emphasis is upon theory and practice of staging and direction. Prerequisites, courses 1 and 11 (or the equivalent of 11 in experience). 8:30-9:20. Dixon.

ZOOLOGY

Professors: LANE, TAYLOR
Instructor: McNAIR

50. General Zoölogy. Five hours credit. An extensive study of the structure, development, behavior, relationships, and history of a series of type forms, both vertebrate and invertebrate. Lectures and laboratory. Not open to students who have had course 1 or 3. Intended for upper college students who major in biology with a view to teaching in high school. Fee, $3.50. Lectures, 7:30-8:20; laboratory, 8:30-10:20. Lane, McNair.

56. Animals of the Past. Two hours credit. A nontechnical account of the more striking and interesting backboned animals of the past—when, where, and under what conditions they lived. Lectures, assigned readings, and frequent museum demonstrations. Particular stress is laid on North American forms, with special reference to those occurring in Kansas. 11:30-12:20. Lane.

Note.—One of the following two courses will be offered, choice to be made on the basis of requests for the individual courses. Early indication of choice, by mail or personally, to the department is requested.

3. Comparative Anatomy. Five hours credit. Structure and relations of the higher vertebrates. Lectures, assigned readings, and laboratory study of types. A course designed for premedical students, teachers and for those desiring general culture. Prerequisite, course 1 or equivalent. Not open to students who have credit in Zoölogy 103. Fee, $7.50. Lectures, 9:30-10:20; laboratory, 7:30-9:20. Taylor.

103. Vertebrate Morphology. Five hours credit. A course in comparative morphology for juniors, seniors, and graduates, in which a graded series of vertebrate forms is studied in detail, with the view of determining the origin and development of the organs and structures of the human body. Special attention is given to theoretical as well as practical problems. Readings, lectures and laboratory work. Prerequisite, ten hours of biology, including course 1. Not open to students who have credit for course 3. Fee, $7.50. Lectures, 9:30-10:20; laboratory, 7:30-9:20. Taylor.

159. Animal Distribution. Two hours credit. A study of the geographical distribution of animals, the factors determining the range of species, life zones, barriers, zoölogical realms, and the relation of distribution to the origin of species and varieties. Prerequisite, 10 hours of zoölogy. 10:30-11:20. Taylor.

300. Thesis. One to five hours credit. Students working for a degree with a major in the Department of Zoölogy will register in this course for credit in work done in preparation of their thesis. Credit will be given only upon a satisfactory presentation of the subject matter of the thesis before the department faculty. By appointment. Lane or Taylor.

305. Graduate Seminar. One to five hours credit. Open only to students with graduate standing in zoölogy. By appointment. Lane or Taylor.

325. Graduate Research. One to eight hours credit. Problems in (*a*) Morphology; (*b*) systematic and descriptive zoölogy; (*c*) animal histology; (*d*) vertebrate paleontology; (*e*) embryology; (*f*) genetics; (*g*) parasitology; (*h*) cytology; (*i*) ecology; (*j*) ornithology; (*k*) mammalogy. Fee, $1.50 per hour. By appointment. Lane or Taylor.

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