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UNIVERSITY OF MISSOURI BULLETIN



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COLLEGE OF EDUCATION 1948-49

THE UNIVERSITY OF MISSOURI BULLETIN

COLLEGE OF EDUCATION ANNOUNCEMENT

1948-49



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Education as a Profession

Prospective students who are considering entering the College of Education of the University of Missouri should know that this College is organized for the professional education of teachers and that members of its staff believe that all workers in the field of education should be members of an established profession.

A profession is commonly distinguished from other occupations by the nature and the amount of education required of the practitioner before he is allowed to begin the practice of his vocation. Most of the recognized professions now require at least the completion of a four year college program. Some require from five to seven years of college training. Professions also have a distinct body of specialized knowledge and of established practices that must be known by the workers in each of them. Such knowledges and practices are peculiar to each of the professions and require a special type of college training for their mastery.

Under the laws of the State of Missouri, the College of Education of the University of Missouri has the authority to grant professional certificates to teach in the public schools of the state to those persons who have completed the programs set up by the Faculty of the College of Education for attaining such certificates.

The needed professional education for teaching is two-fold. A teacher must have something to teach. He must have command of the knowledge and skills which he in turn expects his pupils to learn. However, this is not in itself enough to make a competent teacher. The teacher must know, also, those factors and conditions which are necessary for good learning. He must know as much as possible about how people learn in his particular field and he must know how to direct those processes which contribute to effective learning.

Courses in the subject-matter fields in which teachers must acquire competency are offered by other departments and divisions of the University. For example, such courses as those in English, mathematics, history, sciences, languages, art, music, speech, and others are offered in the College of Arts and Science. Courses in agriculture and home economics are offered in the College of Agriculture. Certain courses in accounting, economics, and political science are offered only in the School of Business and Public Administration. Courses in anatomy and physiology are offered in the School of Medicine.

The professional courses dealing directly with teaching and learning processes, and with school administration and supervision are offered

by the College of Education. Courses in educational psychology, techniques of teaching in elementary and secondary schools, history of education, management and administration for teachers, teaching of reading, teaching of social studies, teaching of music, and others which include directed experiences in student teaching are offered for undergraduate students.

Some of the professional positions for which students may expect to get specific training in the College of Education are: kindergarten teacher; elementary school teacher; rural school teacher; junior high school teacher; secondary school teacher of English, speech, social studies, languages, mathematics, sciences, music, art; teacher of physical education; teacher of vocational agriculture; teacher of vocational home economics; teacher of industrial arts; teacher of trades and industries; teacher of commercial subjects.

Preparation for other professional positions should begin in the College of Education and continue in the Graduate Department of Education in the Graduate School. The educational programs for these positions are usually five year programs or more. Some of these are: principal of an elementary school; principal of a junior high school; principal of a senior high school; superintendent of schools; city or state supervisor; educational and vocational counselor; college teacher of educational psychology; college teacher of education; teacher of vocational education; specialist in tests and measurements; curriculum director; and director of research.

Many teachers in the public schools now have five or more years of preparation and hold graduate degrees. Teachers in the junior colleges and in the four-year colleges may profit by the professional courses offered in the department of education at the graduate level.

College of Education

The College of Education has these definite purposes :

1. It provides professional education for men and women who plan to make teaching, school supervision, or school administration a career.
2. It provides an appropriate foundation for graduate research and advanced study in the various areas of education.
3. It extends certain assistance in the nature of research, studies, surveys, and consultation to the public schools of the state.

Organization

The undergraduate work in Education is organized in the College of Education which consists of the freshman, sophomore, junior, and senior years.

The graduate work in Education is organized as a department in the Graduate School.

Facilities

The classrooms, laboratories, and libraries of the entire University are made available to students in the College of Education. Specialists in other departments and divisions of the University offer instruction in all subject matter areas leading to teaching majors in those fields in which elementary and secondary school teachers work.

The library in Education is housed in the General Library Building. The Education collection has been carefully developed to make available significant materials for carrying forward graduate and research programs in Education. This library is supplemented by contributions to the Irion Library in Education, a special collection established through an endowment fund created by Phi Delta Kappa.

The Laboratory School

The Laboratory School of the University consists of an elementary school, a junior high school, and a senior high school. It provides a vital integrating center for teacher education activities.

The Laboratory School attempts to provide an adequate instructional program for children from the kindergarten through the senior high school. This program is designed to make possible a study of the growth and development of children and their progress by means of appropriate instruction. It implies also study, evaluation, and adaptation of the results of research as well as best practices in current American education. The operation of the school affords opportunities for demonstration teaching, visitation by interested persons, research, and consultation with reference to educational problems.

The Laboratory School also provides opportunities for teacher education in those fields which include student teaching and apprenticeship in school situations as a basic part of teacher education.

Placement

A professional Teacher Placement Service is maintained to assist teachers in securing positions. This service is available to recent graduates of the University, to all former students who have attended the University a minimum of one summer session, and to former graduates who desire assistance in securing positions.

A fee of two dollars is charged for one year's service. Correspondence with regard to placement of teachers should be addressed to:

Dr. L. A. Eubank
 Director Teacher Placement
 217 Education Building
 University of Missouri
 Columbia, Missouri

ADMISSION

For admission to the College of Education a minimum of fifteen accredited high school units, exclusive of physical education and military science, must be presented. Three units shall be in English and a minimum of eight additional units shall be selected from the fields of mathematics, social studies, fine arts, science, and foreign language. The remainder of the fifteen units may be selected from any other courses accepted by an accredited high school for its diploma, with the exception of physical education and military science.

Students admitted to the University under provisions of Plans B, C, and D, explained in the section on admission in The University of Missouri General Catalog, will be admitted to the College of Education.

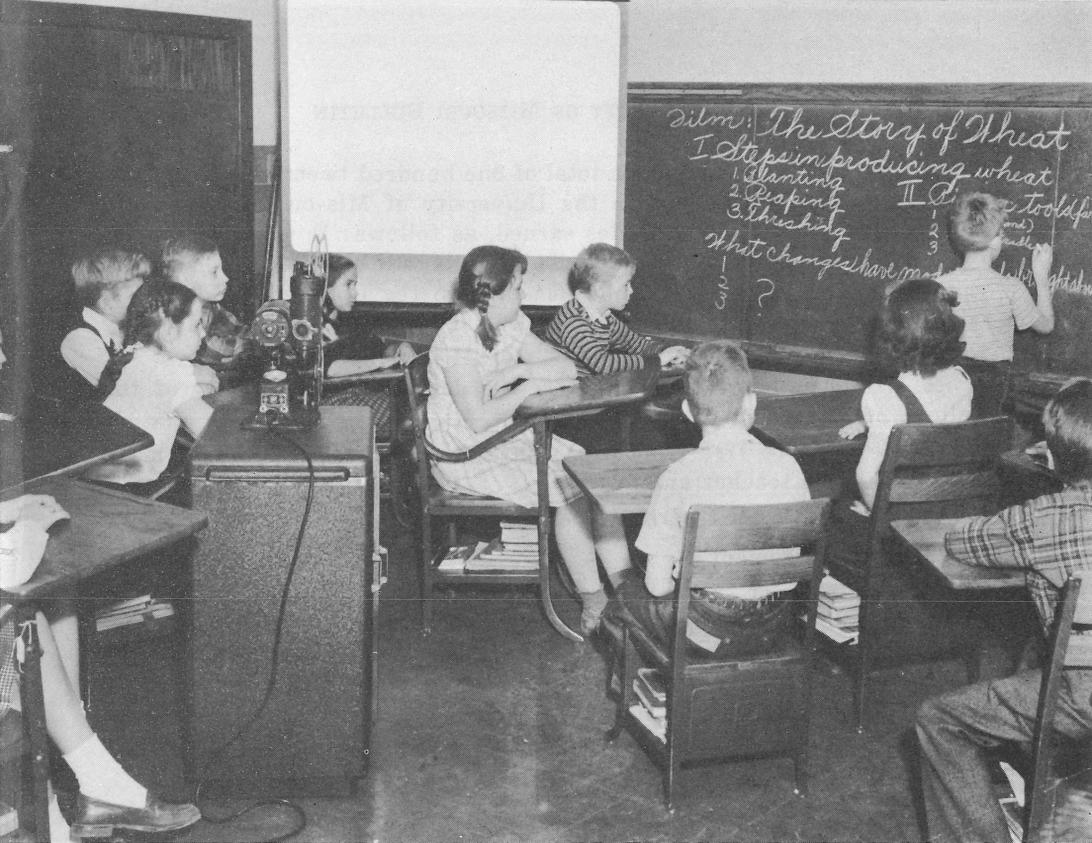
Credit in the form of advanced standing may be allowed for work satisfactorily completed in another college or university of recognized standing in so far as such work satisfies the particular requirements of the College of Education. Advanced standing for the work of the senior year will not be granted.

Inquiries concerning admission to the College of Education of the University of Missouri should be addressed to the Director of Admissions. The applicant should provide the Admissions Office with complete transcripts of credit and a statement that the enrollment desired is in the College of Education.

DEGREES AND CERTIFICATES

The College of Education confers one undergraduate degree, Bachelor of Science in Education (B. S. in Ed.).

The College of Education is authorized by the Legislature of Missouri to issue certificates, valid for life, to students who have completed the



Intermediate grade pupils use visual aids.

requirements for the degree of Bachelor of Science in Education and who are recommended by the faculty of the College of Education as being qualified to teach in the public schools of the state.

The course work necessary to complete the requirements for certificate issued by the State Department of Education of Missouri may also be completed in the College of Education.

REQUIREMENTS FOR GRADUATION

In order to secure the degree of Bachelor of Science in Education (B. S. in Ed.), the candidate must fulfill the following requirements:

1. He must be regularly admitted to the College of Education.
2. He must complete the professional courses in Education listed in the various curricula and also the other courses required in the curriculum of specialization.
3. He must establish a satisfactory record on an English Proficiency Examination.
4. He must have completed one hundred twenty credit hours of work acceptable toward the degree of Bachelor of Science in Education. Credit in the required courses in physical education and military science in the freshman and the sophomore years is not included in the one hundred twenty hours.

5. He must also complete a total of one hundred twenty credit points. Each hour of credit earned in the University of Missouri is valued in points on the basis of the grades earned, as follows: E, three points; S, two points; M, one point; I, no points. Points will be allowed for credits earned in other institutions, and accepted in the College of Education, commensurate with the quality of work done, except that in no case may the number of points awarded exceed the number of hours.

6. He must be recommended for the degree by the Faculty of the College of Education.

7. He must be free from gross physical defects which would make his success as a teacher unlikely.

8. He must meet the residence requirement.

Residence Requirement

A student must spend his senior year in the University of Missouri in order to obtain the degree of Bachelor of Science in Education. Students entering with advanced standing must complete at least three courses in Education to fulfill the requirements for the degree and must complete at least one course with not less than three hours of credit in the subject of specialization. Work done in the summer sessions of the University will be counted as work in residence.

Programs of Study

Professional advisement is an important feature of the program of the College of Education. At the time of enrollment, each student is assigned to an adviser who is a member of the Faculty of the College of Education. The adviser assists the student in arranging the program of study for each semester. Assistance in advisement problems is also provided by the Counseling Bureau and by the Office of the Dean of the College of Education.

While the program of study of a student may be materially strengthened by taking certain elective courses, such election should be made only with the consent of the proper advisers. Students will not be permitted to elect studies at random.

MAJORS AND MINORS

Students preparing for secondary school teaching are required to have an academic major and also a minor. Exception in the case of the minor may be made for students enrolling in specialized curricula such as physical education, vocational home economics, industrial education, music, and art.

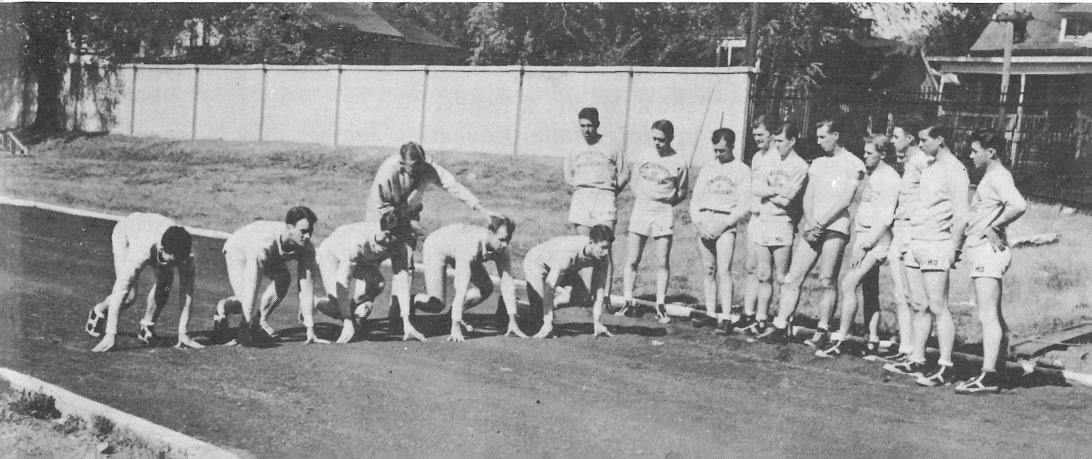
Students preparing for elementary school teaching are required to have broad training in a number of subject matter areas in addition to a major in elementary education. A concentration of at least fifteen hours in a subject matter area will be required as a minor. Programs in elementary education should be planned with the close supervision of an adviser.

MAJOR AND MINOR REQUIREMENTS FOR TEACHERS

Field	Minimum Minimum require- require- ment for ment for		Adviser	Room No. of Adviser
	Major	Minor		
I. Elementary School Teachers: Directors of Kindergartens, Primary Teachers, Intermediate Grade Teachers, Upper Grade Teachers (a)			Mr. Artley Miss Taylor Miss Knowles Miss Farthing Mr. Townsend Mr. Maxwell	209 Education 206 Education 304 Education 308 Education 212 Education 215 Education
II. Secondary School Teachers (Junior and Senior High Schools):				
Agriculture (a)			Mr. Ekstrom	122 Waters
Art	40	20	Miss Wulfekammer	325 Jesse
Biology	24	15	Miss Guthrie	110 Lefevre
Chemistry	24	15	Mr. Wyatt	212 Education
Commercial Subjects (a)			Miss Williams	314 Education
English	36	27	Mr. Moffett	205 Jesse
French	24	20	Mr. Jesse	305 Jesse
General Science	40	30	Mr. Watkins	221 Jesse
Geography	24	15	Mr. Holmes	101 Swallow
German	24	20	Miss Nagel	309 Jesse
Home Economics (a)			Miss Irons	107 Gwynn
Industrial Arts (a)			Mr. London	202 Indus. Educ.
Latin	24	20	Mr. Gwatkin	211 Jesse
Mathematics	24	15	Miss Doolittle	312 Jesse
Music (a)			Mr. Van Bodegraven	211 Lathrop
Physical Education (Men) (a)			Mr. Matthews	Rothwell Gym.
Physical Education (Women) (a)			Miss McKee	Women's Gym.
Physics	24	15	Mr. Hammond	104 Stewart
Physiology and Hygiene	24	15	Mr. Max Ellis	210 McAlester
Social Studies	40	30	Mr. English	315 Jesse
Spanish	24	20	Mr. Scheer	312 Jesse
Speech	34	25	Mr. Aly	321 Switzer
Vocational Agriculture (a)			Mr. Ekstrom	122 Waters
Vocational Home Economics (a)			Miss Irons	107 Gwynn
Vocational Education: Trades and Industries (a)			Mr. London	202 Industrial Education

(a) For requirements, see special curriculum.

The physical education program includes directed experiences in all sports.



Undergraduate Curricula

I

ELEMENTARY SCHOOL TEACHERS

General Education Requirements

All freshmen who plan to major in elementary education will be required to take a three hour course, Introduction to Education, for orientation and guidance purposes.

Appropriate tests in the basic skills such as English, Speech, etc. will be given to freshmen, and students will be scheduled in remedial sections when necessary.

During the first two years, students will be required to complete English, nine hours; social studies, ten hours, including American History and Government; science, ten hours, including one course in biological science and one course in geology or other physical science; mathematics, three hours (students who present three units of high school mathematics may be excused from the mathematics requirement); fine arts, five hours; and physical education. Men students who are not veterans should complete the course in military science and tactics during the freshman and sophomore years. Preventive Medicine or School Hygiene, two hours, will also be required but may be taken in any year.

Adjustments will be made in the requirements of the first two years for students enrolled in the special curriculum in rural education.

Required Professional Courses in Education

The student is expected to complete the following professional courses in the field of Education in addition to Introduction to Education:

A102, Educational Psychology, 3 hours.

A140, Diagnostic Testing and Remedial Teaching, 3 hours. Prerequisites, A102, E121.

B125, History of American Education, 3 hours.

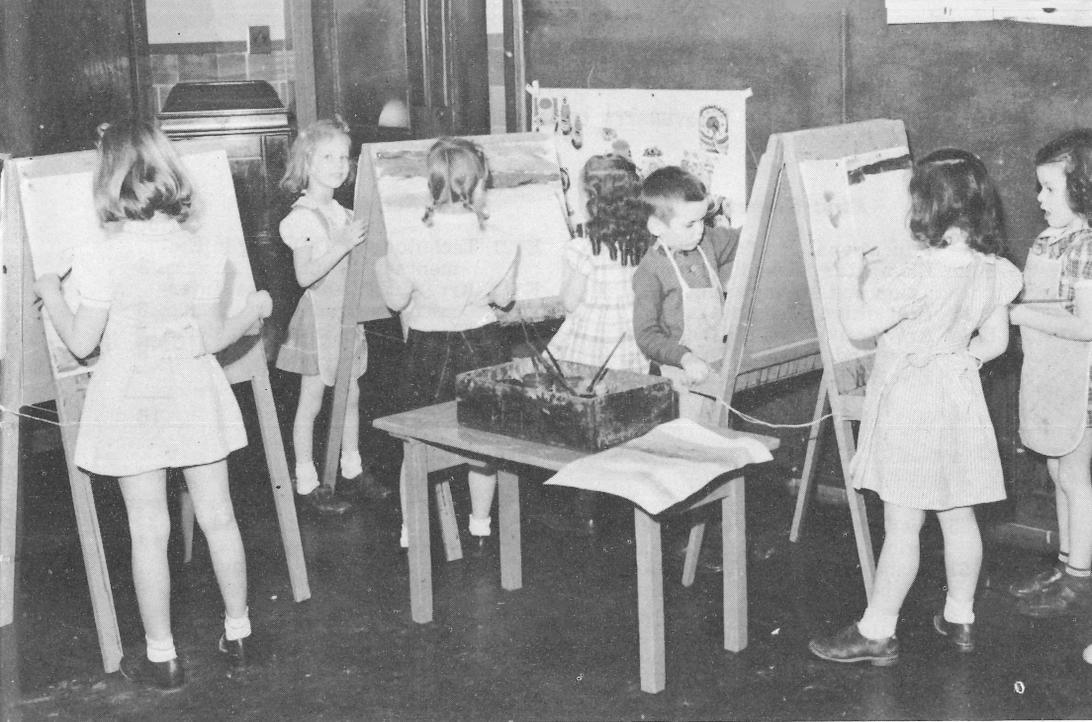
E120, Elementary School Organization and Management, 3 hours.

E121, Technique of Teaching in Elementary Schools, 3 hours. Prerequisite, A102.

E151, Assistant in the Elementary School, 6 hours. Prerequisite, A102, E121.

J129, Elementary School Music, 2 hours.

The required work in professional Education courses may be supplemented under the direction of the adviser. The student should observe carefully the sequence of certain of these Education courses. The course A102, Educational Psychology, is the basic prerequisite for all further professional courses and must be taken before the student can enroll in course E121, Technique of Teaching in Elementary Schools. Students will not be permitted to enroll in course E151, Assistant in the Elementary



Kindergarten pupils use art as a means of expression.

School, and do student teaching in the Laboratory School, until they have completed the course E121, Technique of Teaching in Elementary Schools.

SUGGESTED CURRICULUM FOR MAJORS IN ELEMENTARY EDUCATION

Freshman Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
Introduction to Education	3	General Psychology	3
English Composition and Rhetoric ..	3	English Composition and Rhetoric	3
Biological or Physical Science	5	Biological or Physical Science	5
Elective (subject-matter courses)	5	Electives (subject-matter courses)	5
Physical Education	1	Physical Education	1
Military Science	1	Military Science	1
	18		18

Sophomore Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
English	3	American Government or American	
American History or American		History	5
Government	5	Geography	3
Mathematics	3	Electives	8
Electives (subject-matter courses)	5	Physical Education	1
Physical Education	1	Military Science	1
Military Science	1		
	18		18

Five hours of elective courses in the first two years must be in the field of fine arts. In addition to courses in music and art, a major in elementary education, particularly kindergarten and primary education, should elect courses in the fields of general psychology and sociology.

Junior Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
A102 Educational Psychology	3	E121 Technique of Teaching in Ele-	
E120 Elementary School Organiza-		mentary Schools	3
tion and Management	3	E119 Art Activities in the Inter-	
25 Preventive Medicine	2	mediate Grades	3
E118 Art Activities in Kindergar-		J129 Elementary School Music ...	2
ten and Primary Grades	3	Electives	8
Electives	5		
	<hr/>		<hr/>
	16		16

Senior Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
B125 History of American Educa-		A140 Diagnostic Testing and Re-	
tion	3	medial Teaching	3
E151 Assistant in the Elementary		E151 Assistant in the Elementary	
School	3	School	3
Physical Education	3	E325 Primary Methods and Ma-	
Electives	7	terials in Reading	3
		Electives	7
	<hr/>		<hr/>
	16		16

Students who plan to specialize in kindergarten education will be required to elect courses E122 and E123. Courses E365, E366, E367, E368, and E369 are appropriate electives in Education for elementary school teachers.

Teachers of Art in the Elementary School

The required Education courses for special teachers of art in the elementary schools are the same as those required for other elementary school teachers, except that in addition the following courses should be taken:

Art Activities in the Kindergarten and Primary Grades, E118 ..	3 hours
Teaching of Art, D115	3 hours
Supervision of Art Activities, E340	2 hours

Recommended Music Courses for Elementary School Teachers

Elementary school teachers usually find it desirable to have an acquaintance with public school music, and it is therefore recommended that they take the following courses, in addition to the required course J129, Elementary School Music: J127, Song Literature for Children; and Music 1, Introduction to Music. It is especially important that students who specialize in kindergarten have adequate training in music.

Minor in Geography For Elementary School Teachers

Teachers completing the elementary curriculum may complete a minor in Geography by taking the following courses:

Geography, 6	Introductory Geography	3
Geography, 110	Geography of North America	3
Geography, 112	Geography of Europe	3
Geography, 319	Conservation of Natural Resources	3
Education, E107	Teaching of Geography in the Elementary	
	School	2
	Electives in Geography	2

Curriculum in Rural Education

The curriculum in rural education is a special two-year program designed to meet the needs of students in elementary education who plan to teach in the rural sections of the state. This includes village and small town schools. Students may enroll in this curriculum as freshmen.

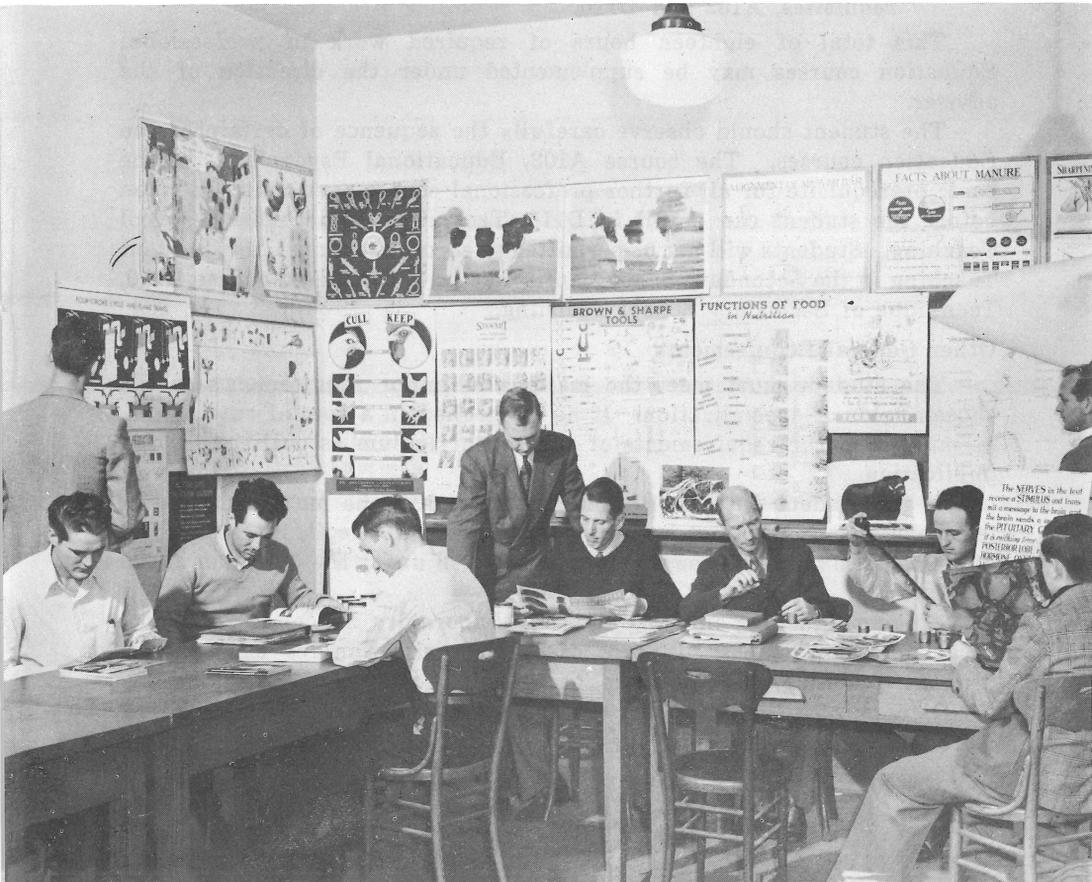
The program will include subject-matter courses in English, science, social studies, art activities, music, and children's literature.

Thirteen hours of this curriculum will be taught in the College of Agriculture in courses in agriculture, home economics, and rural sociology. This section of the program is planned to acquaint the student with significant problems of rural life and conditions as they affect education.

The curriculum will include appropriate courses in professional education necessary to qualify the prospective teacher for teaching in the elementary schools.

Students who complete the curriculum in rural education, and who may desire to continue their education later, will be eligible to begin the work of the junior year in the College of Education without loss of credit.

A workroom for Vocational Agriculture Students.



II

SECONDARY SCHOOL TEACHERS

General Education Requirements

The general education requirements applicable in the case of elementary school teachers are also applicable to secondary school teachers.

Adjustments may be made in the requirements of the first two years for students enrolled in vocational education curricula.

Required Professional Courses in Education

The student is expected to complete the following professional courses in the field of Education in addition to G75, Introduction to Education.

A102, Educational Psychology, 3 hours.

B125, History of American Education, 3 hours.

D110, Technique of Secondary School Teaching, 3 hours. Prerequisite, A102.

D140, Secondary School Administration for Teachers, 2 hours. Prerequisite, A102.

A course in the teaching of the subject of specialization, 2 hours. Prerequisite, A102.

D150, Student Teaching in the Secondary School, 5 hours. Prerequisites, A102 and D110.

This total of eighteen hours of required work in professional Education courses may be supplemented under the direction of the adviser.

The student should observe carefully the sequence of certain of the Education courses. The course A102, Educational Psychology, is the basic prerequisite for all further professional courses and must be taken before the student can enroll in D110, Technique of Secondary School Teaching. Students will not be permitted to enroll in course D150, Student Teaching in the Secondary School, until they have completed course D110, Technique of Secondary School Teaching.

Other General Requirements

The student must meet the major and minor requirements in his chosen fields of specialization. If he is enrolled in a special curriculum, he must meet the requirements of such a curriculum as outlined in this publication.

If the student enters with advanced standing, he must complete at least one course, with not less than three hours of credit, in the subject of specialization. This course must be selected under the direction of his adviser.

Student Teaching in the University Laboratory School is an almost invariable requirement. In rare cases an application for excuse from Student Teaching, on the basis of unusually successful teaching experience, may be submitted. If the amount of required student teaching is reduced on the basis of such an application, other course work in



Intermediate Grade pupils study projections.

Education must be substituted to complete the total required number of hours of credit in Education. No credit is given for experience gained as an employed teacher receiving a salary.

Teachers of Vocational Agriculture

The curriculum for the training of teachers of vocational agriculture is listed as Curriculum B in the College of Agriculture.

Students expecting to qualify as teachers of vocational agriculture should follow Curriculum B closely.

The course, Foundations in Vocational Agriculture (3 hours), is prerequisite to all other agricultural education courses. Students should enroll in this course during the junior year. Educational Psychology (3 hours) should be included in the schedule of the first semester of the junior year. Secondary School Administration for Teachers (2 hours) may be scheduled either for the junior year or the first semester of the senior year.

All other required courses in agricultural education are to be scheduled during the senior year. These courses include Special Methods in Teaching Vocational Agriculture (3 hours), Supervised Farm Practice in Vocational Agriculture (2 hours), Community Educational Activities in Vocational Agriculture (2 hours), and Student Teaching in Vocational Agriculture (5 hours). (The course Agricultural Engineering 110 should be reserved for the final semester as a special section has been arranged for agricultural education students.)

Upon enrolling for the first course in Education, students will register both in the College of Agriculture and in the College of Education. In order to minimize schedule difficulties, students should be careful to follow the order of courses as shown in Curriculum B of the College of Agriculture.

All students planning to major in agricultural education should consult with the adviser in agricultural education as soon as possible.

Teachers of General Agriculture

Secondary school teachers who are completing a major in an academic field may complete a minor in agriculture. The following courses are included in this minor:

	Hours
Soils 25	5
Field Crops 1	3
Poultry Husbandry 1	3
Animal Husbandry 1	3
Dairy Husbandry 1	3
Horticulture 1	3

Electives may be chosen from the following courses, making a total of twenty-five hours.

	Hours
Agricultural Engineering 1	3
Rural Sociology 75	3
Entomology 1	3
Animal Husbandry 201	3
Field Crops 304	3
Veterinary Science 1	3

Students presenting courses in agriculture from other colleges or universities must have substitutions for above requirements approved by the adviser.

Teachers and Supervisors of Art

A total of forty hours in Art should be completed by a student majoring in the field of Art Education. The following courses are required and should be completed, preferably in the first two years: Art-crafts 55, 75, and 150; History of Art, elective four hours; Theory and practice of Art 2, 3, 5, 19, 70, and 368.

The remainder of the courses in the Art Education major should be selected from the following: Artercrafts 103, 105, 109, 120, 121, 130, 131, and 375; History of Art 316; Theory and Practice of Art 359, 379, 389, 399, 378, 388, 398, 360, 370, 380, 377, 387, and 397.

The required courses in Education for a student majoring in Art Education are as follows:

	Hours
Education A102	3
Education B125	3
Preventive Medicine 25	2
Education D110	3
Education E119	3
Education D140	2
Education D115	3
Education E340	2
Education D150	5

It is usually desirable for the teacher of art to have prepared sufficiently in some other academic field to meet the requirements for teach-

ing that subject. A minor in English, modern language, music, or social studies is suggested.

Teachers of Biology

It is desirable that students preparing to teach biological science be adequately trained in both botany and zoology, and in related fields. By the end of the sophomore year the student should have completed twelve to fifteen hours of biology, including both General Botany and General Zoology. It will then be possible to complete the required twenty-four hours for the major in the junior and senior years and to take the desirable supplementary courses, such as Physiology 100, Elements of Physiology, and Psychology 1, General Psychology. The following courses in botany and zoology are the most important ones for prospective teachers of biology:

Botany		Hours
1	.....General Botany	5
201	.....Taxonomy	3-5
202	.....General Bacteriology	3
Zoology		Hours
1	.....General Zoology	5
120	.....Invertebrate Zoology	3
Field Zoology		Hours
5	.....Ornithology	2-3
6	.....Principles of Wildlife Conservation	3

Selections from the following courses are very desirable in addition to the total for the major, if the student can take further work.

Experiences in Artcraft.



		Hours
Botany		
293	Plant Physiology	5
301	Plant Pathology	3
303	Morphology of Seed Plants	5
306	Plant Ecology	3
Zoology		
4	Comparative Anatomy of Vertebrates	5
220	Embryology of Vertebrates	3
330	Cellular Physiology	3 or 5
340	Genetics	5
Field Zoology		Hours
305	Animal Ecology	3

Teachers of Chemistry

Students interested in majoring in chemistry should complete the following courses:

Chemistry 1 and 2	General Inorganic Chemistry	8
Chemistry 27	Qualitative Analysis	3
Chemistry 210 and 212	Organic Chemistry	8
Chemistry 221	Quantitative Chemical Analysis	3
Chemistry 230	Physical Chemistry	3

For a minor in chemistry the student should complete courses 1, 2, 27, 221, 210, and 212.

The above group of courses does not fully prepare a student for graduate work in chemistry leading to an advanced degree. Such preparation should include Chemistry 231 and 232, Physical Chemistry, 5 hours, instead of Chemistry 230, Physical Chemistry, 3 hours. Chemistry 231 has a prerequisite of Mathematics 201, and a college course in physics. German and French are recommended for students in chemistry.

Teachers of Commercial Subjects

Approximately forty hours are required for a major in commercial education. A minor is not offered.

Credit in typewriting, stenography, and accounting for teachers shall count only toward the degree of Bachelor of Science in Education for students taking the curriculum for teaching of commercial subjects in high school.

In addition to the required work in typewriting and stenography, each student must pass proficiency tests in these fields. If he does not meet the standards set in the tests after having completed the four semesters of prescribed work, he must do additional work in these subjects without credit.

Expertness in typewriting and stenography, acquired under conditions not permitting college credit, as in high school or other institutions of non-college standing, and determined by tests, shall be allowed to reduce the requirement in each of these subjects. In no case shall the student do less than one semester (two hours credit) of work in each of these subjects in the University. Expertness shall in no case exempt a student from the proficiency tests explained above.

Students transferring from junior colleges or other institutions of collegiate rank, may have their credits in commerce transferred to count toward the degree of Bachelor of Science in Education in accordance

with approval granted for such work by the Committee on Accredited Schools and Colleges of the University. A maximum of six hours credit in typewriting and a maximum of eight hours credit in stenography may be transferred from such institutions. In no case shall the student complete less than one semester (two hours credit) of work in both stenography and typewriting in the University. No student transferring credit shall be exempted from the proficiency tests described above.

Teachers completing the requirements in the commercial area must complete a teaching minor in an academic field.

Courses in Marketing, or Money, Credit and Banking, or Personnel Management are recommended as electives in the commercial curriculum.

SUGGESTED CURRICULUM

Freshman Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
Introduction to Education ...	3	2 English Composition and Rhetoric	3
1 English Composition and Rhetoric	3	1 General Psychology	3
1 Botany or Zoology	5	D133 Typewriting	2
D132 Typewriting	2	25 Preventive Medicine	2
Elective (Subject-matter) ..	3	Geography	3
Physical Education	1	Elective (Subject matter) ...	3
Military Science	1	Physical Education	1
		Military Science	1
	18		18

Sophomore Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
30 or		20 American History	5
40 English Life and Literature ..	3	D135 Typewriting	2
51 General Economics	5	D137 Stenography	3
D134 Typewriting	2	Elective	6
D136 Stenography	3	Physical Education	1
Mathematics	3	Military Science	1
Physical Education	1		
Military Science	1		18
	18		

Junior Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
A102 Educational Psychology	3	D110 Technique of Secondary School Teaching	3
B125 History of Education	3	125 Economic Geography	3
D138 Stenography	2	D139 Secretarial Practice	2
D141 Accounting for Teachers	3	37 Accounting	4
1 American Government	5	Elective	4
	16		16

Senior Year

<i>First Semester</i>		<i>Second Semester</i>	
	Hours		Hours
D120 Teaching of Commercial Subjects	2	D140 Secondary School Administration for Teachers	2
354 Business Law A	3	355 Business Law B	3
D150 Student Teaching or Elective ..	5	D150 Student Teaching or Elective ..	5
Elective	6	Elective	6
	16		16

Teachers of English

Students wishing to major in English are advised to complete in their freshman year, in addition to the required composition courses, the course in English 5 or 6, Masterpieces.

In the sophomore year they should take English 30 and 40, English Life and Literature, prerequisites to upperclass courses in English Literature.

The major in English is thirty-six hours, inclusive of English composition and rhetoric, and must include both semesters of the course in English Life and Literature (30 and 40), at least one course in advanced composition (50 or 60), one course in the English Language (319, 320, or 325), two courses in American Literature (375 and 376), one course in English Literature before the eighteenth century, and one course in later English Literature (after the year 1660). Upon the basis of these requirements, majors will be planned under the direction of the adviser for the department to meet the needs of different students. At least twelve of the hours must be made up of upperclass courses. With the required courses here specified there will be six hours of free electives.

A minor in English requires, in addition to English composition and rhetoric and English 30 and 40, English Life and Literature or its equivalent, the five basic courses of the major (advanced composition, the English Language, American Literature, and the earlier and later English Literature).

Teachers of French

Students interested in completing a major in French in preparation for teaching that language should begin their work in their freshman year. A minimum of twenty-four credit hours in French will be required; additional work is recommended.

A student presenting fewer than two units of French from high school for admission to the University should complete the work of the following courses:

French	Hours
1, 2, and 100 Elementary, Intermediate and Advanced French	12-15
207 Masterpieces of French Literature to 1700	3
303 Composition and Conversation	5
304 Advanced Composition	3

If a student presents two units of French from high school, he should complete the work of the following courses:

French	Hours
100 Advanced French	2-5
303 Composition and Conversation	5
304 Advanced Composition	3
or	
207 Masterpieces of French Literature to 1700	2

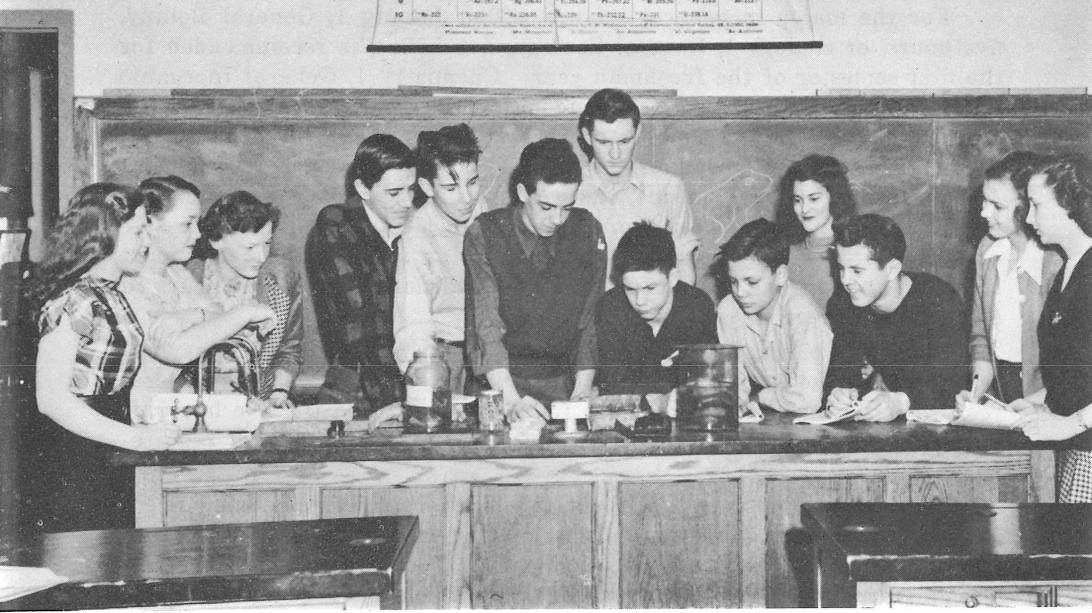
The remaining courses for all students should be selected in conference with the adviser from the following:

French	Hours
202 French Civilization	2

UNIVERSITY OF MICHIGAN

Summaries of Examinations With the Sixth Annual Report of the Committee on Status of the Instructional Staff of the University of Michigan

SESS	GROUP 0	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP
1		W-13078							
2	W-4382	T-4340	W-4322	W-4321	T-4320	W-4320	T-4320	T-4320	
3	W-4313	W-4309	W-4312	W-4311	W-4310	T-4310	T-4310	T-4310	T-4310
4	W-4304	W-4306	W-4308	W-4307	W-4306	T-4306	T-4306	T-4306	T-4306
5		W-4305	W-4305	W-4305	W-4305	T-4305	T-4305	T-4305	T-4305
6	W-4317	W-4316	W-4315	W-4314	W-4313	T-4313	T-4313	T-4313	T-4313
7		W-4314	W-4314	W-4314	W-4314	T-4314	T-4314	T-4314	T-4314
8	W-4313	W-4313	W-4313	W-4313	W-4313	T-4313	T-4313	T-4313	T-4313
9									
10	W-4322	W-4322	W-4322	W-4322	W-4322	T-4322	T-4322	T-4322	T-4322



Pupil Demonstrations form a part of the experiences in Secondary School Science.

208	.....	Masterpieces of French Literature from 1700	
		Until Today	3
301	.....	Phonetics	1
312	.....	French Novel	3
314 or 315	.....	Lyric Poetry	3
316	.....	The French Language	3
350	.....	Special Readings	1-3

Majors and Minors in General Science

Students wishing to major in general science should take ten hours in physics, ten hours in chemistry and ten hours in biological science, preferably distributed between botany and zoology or human physiology. In addition, students should add a minimum of at least five hours to each of two of these fields. Such students will be qualified to teach, under present regulations, general science and the two other sciences in which a minimum of fifteen hours has been attained.

Students wishing to minor in general science should take fifteen hours in biological sciences, eight to ten hours in physics and five hours in chemistry. Such students, under present regulations, will be qualified to teach general science and biology.

It is recommended that students beginning a general science major have three units of mathematics in high school. It is desirable that

those majoring in general science take a course in college algebra before the junior year.

For the major in general science, either botany 1, General Botany, five hours, or zoology 1, General Zoology, five hours, is recommended for the first semester of the freshman year. Chemistry 1, General Inorganic Chemistry, five hours, is recommended for the second semester of the freshman year. In the sophomore year students should take physics 1, Elementary College Physics, five hours, in the first semester, and physics 2, Elementary College Physics, three hours, in the second semester. It is highly desirable that these two courses in physics be taken in successive semesters of the same year. Students majoring in general science must complete at least one course in physics in addition to the eight hours in elementary college physics.

Students working toward a major or minor in general science may use the botany or zoology taken in the freshman year to meet the general requirement of a biological science for all teachers and the five hours of chemistry or the first five hours of physics to meet the general requirement in physical science.

There are almost no positions for teachers of single sciences in Missouri secondary schools. Teachers of science must be qualified to teach all of the natural sciences commonly offered in the high schools. The large majority of Missouri secondary schools offer general science. The other sciences commonly offered are general biology, physics and chemistry. Physiology and hygiene are frequently offered. These courses are sometimes taught by science teachers and sometimes by physical education teachers. These requirements are in addition to the regularly required Education courses, including D124, The Teaching of General Science.

At the present time, secondary school teachers of science must have five hours of biology, five hours of physics, and five hours of chemistry, and a minimum of fifteen hours in each special science taught.

Teachers approved for small first-class secondary schools should be qualified to teach both science and mathematics.

Teachers of Geography

Students qualifying to teach geography should follow the suggested courses:

	Hours
Geology 1	Principles of Geology 5
Geology 25	Advanced General Geology (for teachers of Physical Geography) 4
Geography 6	Introductory Geography 3
Geography 125	Economic Geography 3
Geography 133	Trade Centers 2
Geography 165	Climatology 2 or 3
Geography 319	Conservation of Natural Resources 3
Geography 380	Political Geography and Aspects of Geo- politics 3
	Electives in Geography 1-5

Teachers of German

Students interested in a major in German must complete a minimum of twenty-four credit hours. The following courses are recommended:

German	Hours
1 Beginning German	5
2 German Reading, Syntax, and Composition ..	5
103 Advanced Reading	3
154 Masterpieces in German Drama, Lyrics, and Novel	3

To fulfill the teaching major the remainder of the courses should be selected from the following:

German	Hours
206 Advanced Composition and Conversation	2
307 Lessing	3
308 and 309 Schiller	6
310 and 311 Goethe	6
312 German Dramatists of the 19th Century	3
313 The German Novel	3
314 Outline of German Literature	3
315 Outline of German Language	3
350 Special Readings	1-2

Courses 206, 310 or 311, and 314 are especially recommended.

Students presenting two units of German from high school should usually begin with Course 2, Reading, Syntax, and Composition, and continue the training suggested above. If, however, they have completed the two units of high school work so well that they are prepared for Advanced Reading, they may begin with Course 103.

A student minoring in German, in order to teach the subject, must complete at least twenty hours of German.

Teachers of Home Economics

Those who wish to qualify for teaching Vocational Home Economics are referred to the special curriculum for teachers of Vocational Home Economics.

Secondary school teachers who are completing a major in an academic subject may take a minor in Home Economics. The following courses will be required work for such students:

	Hours
Home Economics 10 Personal and Family Relationships	2
Home Economics 15 and 16 Design I and II	4
Home Economics 20 Home Nursing and Health	2
Home Economics 31 Selection and Preparation of Food	5
or	
Home Economics 2 Foods	3
and	
Home Economics 130 Nutrition I. Food in Relation to Health	3
Home Economics 50 and 51 Textiles and Clothing	6
Home Economics 160 Home Care and Training of Children	3

The following courses, although not required for a minor in Home Economics, are recommended:

	Hours
Home Economics 110 Home Furnishing I	3
Home Economics 120 Food Buying	2
Home Economics 125 Meal Planning and Table Service	2

Home Economics 130	Nutrition I: Food in Relation to Health	3
Home Economics 150	Buying of Clothing and Textiles	3
Home Economics 217	Economic Problems of the Family	3

Students completing a minor in Home Economics should also complete work in the biological and physical sciences, English, sociology and economics.

Teachers of Industrial Arts

In addition to subjects required of all students in Education, students who desire to major in industrial education with the view of becoming teachers of industrial arts should include the following courses in their freshman and sophomore programs:

	Hours	
Education F8	General Shop	3
Education F10	Fundamentals of Woodwork	3
Education F12	General Metal Work	3
Education F14	Applied Electricity	3
Mechanical Engineering 1	Engineering Drawing	3

Majors in industrial education should take Chemistry I and Physics I for their science requirement. Artcraft I and II are recommended for the fine arts requirement.

SUGGESTED JUNIOR-SENIOR CURRICULUM FOR TEACHERS OF INDUSTRIAL ARTS

Junior Year

	Hours	
Education A102	Educational Psychology	3
Education B125	History of American Education	3
Mechanical Engineering 80	Machine Tool Operations	3
Preventive Medicine 25	Preventive Medicine	2
Education F115	Tools and Materials	2
Economics 41	Industrial Economics	3
Education F125	Art Metal Work	2
Education F150	Industrial Arts Design	3
Education F375	Selection and Organization of Subject Matter	2
Geography 125	Economic Geography	3
	Electives	6

Senior Year

	Hours	
Education D140	Secondary School Administration for Teachers	2
Education D110	Technique of Secondary School Teaching	3
Education F160	Architectural Drawing and Home Design	3
Education F106	Advanced Woodwork	3
Education F396	Organization and Administration of Industrial Education	3
Education F321	Vocational Guidance	3
Education F390	Principles of Trade and Industrial Teaching	3
Education D150	Student Teaching in the Secondary School	5
	Electives	7

Teachers of Trades and Industries and Distributive Education

The Department of Industrial Education of the University of Missouri is the designated agency for the training of teachers for trades and industries, including coordinators, and for distributive occupations for the schools of the state. Students who desire to enter these fields as teachers, or to work toward advanced degrees in them, should major in industrial education.

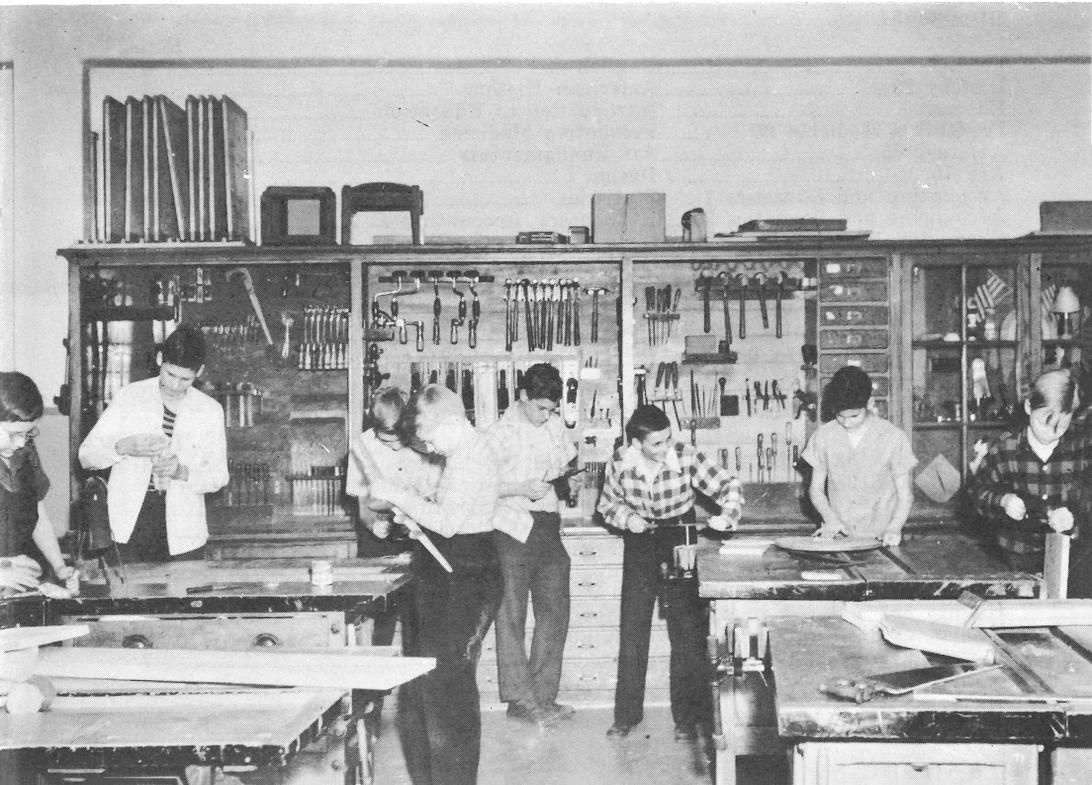
The State Plan, under which the program of vocational education operates, requires that teachers of trades, industries, and distributive occupations shall have had practical experience in the trade or occupation which they propose to teach. The amount and character of required trade experience varies somewhat among the various types or classes, but in all cases successful occupational experience is a prerequisite to admission to the teacher-training courses offered in these subjects.

Trades and Industries

Industrial education majors who plan to qualify as teacher of trades and industries should include the following courses in their freshman and sophomore programs :

		Hours
English 1 and 2	Composition and Rhetoric	6
History 20	American History	6
Economics 41	Industrial Economics	3
Chemistry 1	General Inorganic Chemistry	5
Physics 1	Elementary College Physics	5
Mathematics		3
Geography 125	Economic Geography	3
Education	Introduction to Education	3
Education F8	General Shop	3
Education F10	Fundamentals of Woodwork	3
Education F12	General Metal Work	3
Education F14	Applied Electricity	3
Mechanical Engineering 1	Engineering Drawing	3
Mechanical Engineering 80	Machine Tool Operations	3

Junior High School pupils in general shop.



SUGGESTED JUNIOR-SENIOR CURRICULUM FOR TEACHERS OF TRADES AND INDUSTRIES

Junior Year

	Hours	
Education A102	Educational Psychology	3
Education B125	History of American Education	3
Preventive Medicine 25	Preventive Medicine	2
Education F115	Tools and Materials	2
Education F106	Advanced Woodwork	3
History 352	Economic History of the United States	3
Economics 302	Industrial Management	3
Education F365	Occupational Analysis	2
Education F150	Industrial Arts Design	3
Education D140	Secondary School Administration for Teachers	2
	Electives	6

Senior Year

	Hours	
Education F160	Architectural Drawing and Home Design	3
Education F392	Problems of the Coordinator	2
Education F375	Selection and Organization of Subject Matter	2
Economics 310	Labor Problems	5
Education F321	Vocational Guidance	3
Education D110	Technique of Secondary School Teaching	3
Education F390	Principles of Trade and Industrial Teaching	3
Education D150	Student Teaching in the Secondary School	5
Education F396	Organization and Administration of Industrial Education	3
	Electives	3

Distributive Education

Students who contemplate majoring in industrial education with the view of becoming teachers of distributive subjects should include the following subject-matter courses in their freshman and sophomore programs:

	Hours	
English	English	6
History 20	American History	5
Education	Introduction to Education	3
Preventive Medicine 25	Preventive Medicine	2
Artercraft 55	Art Fundamentals	2
Art 70	Design I	3
Accounting and Statistics 1	Statistics	4
Accounting and Statistics 37	Elementary Accounting	4
Chemistry 1	General Inorganic Chemistry	5
Economics 51	General Economics	5
Journalism 120	Advertising Principles and Practices	3
Journalism 127	Retail and Direct Advertising	3
Mathematics	Mathematics	3
Geography 125	Economic Geography	3

SUGGESTED JUNIOR-SENIOR CURRICULUM FOR TEACHERS OF DISTRIBUTIVE EDUCATION

Junior Year

	Hours	
Education A102	Educational Psychology	3
Education B125	History of American Education	3
Economics 304	Principles of Marketing	3
Economics 316	Credits and Collections	3
Education F321	Vocational Guidance	3
Education F365	Occupational Analysis	2
Education D140	Secondary School Administration for Teachers	2
History 352	Economic History of the United States	3
Economics 314	Retailing	3
	Electives	7

Senior Year

	Hours	
Economics 354	Business Law A	3
Economics 336	Personnel Management	3
Education F375	Selection and Organization of Subject Matter	2
Education F392	Problems of the Coordinator	2
Economics 310	Labor Problems	5
Education D110	Technique of Secondary School Teaching	3
Education D150	Student Teaching in the Secondary School	5
Education F398	Organization and Supervision of Distributive Education	2
	Electives	7

Teachers of Latin

Students interested in completing a major or minor in Latin should follow the suggested outline of courses given below, depending upon the number of units of high school Latin presented upon admission.

I. If a student presents three or four units, he should complete for a major: Ten or more hours chosen from:

	Hours	
Classical Languages 100	Vergil's Aeneid: I-IV	5
Classical Languages 101	Cicero's Essays on Friendship and Old Age ..	5
Classical Languages 102	Pliny: Selected Letters	2
Classical Languages 103	Ovid: Selected Poems	3
Classical Languages 104	Latin Prose Composition	1
followed by		
Classical Languages 310	Horace: Selections	3
followed by	eleven hours chosen from the following:	
Classical Languages 306	Latin Prose Composition	1
Classical Languages 314	Cicero's Letters	3
Classical Languages 315	Rapid Reading	2
Classical Languages 316	Rapid Reading	2
Classical Languages 317	Catullus: Selected Poems	3
Classical Languages 319	Vergil's Aeneid: VI-XII	3
Classical Languages 320	Latin Comedy	3
Classical Languages 321	Juvenal's Satires	3
Classical Languages 351	Tacitus	3

II. If a student presents three or four units he should complete for a minor: Ten or more hours chosen from:

	Hours	
Classical Languages 100	Vergil's Aeneid: I-IV	5
Classical Languages 101	Cicero's Essays on Friendship and Old Age ..	5
Classical Languages 102	Pliny: Selected Letters	2
Classical Languages 103	Ovid: Selected Poems	3
Classical Languages 104	Latin Prose Composition	1
followed by		
Classical Languages 310	Horace: Selections	3
followed by	two or more hours chosen from the following:	
Classical Languages 306	Latin Prose Composition	1
Classical Languages 314	Cicero's Letters	3
Classical Languages 315	Rapid Reading	2
Classical Languages 316	Rapid Reading	2
Classical Languages 317	Catullus: Selected Poems	3
Classical Languages 319	Vergil's Aeneid: VI-XII	3
Classical Languages 320	Latin Comedy	3
Classical Languages 321	Juvenal's Satires	3
Classical Languages 351	Tacitus	3

III. Students who present no high school units in Latin should take course 1, Beginning Latin. Students presenting two units should take course 10, Cicero's Orations and Grammar. The suggested courses for the major should then be followed.

IV. Prospective teachers of Latin are also urged to elect at least one, and as many as possible, of the following courses:

	Hours
Classical Archaeology 60 Classical Mythology	2
Classical Archaeology 240 Roman Life and Civilization	2
History 306 Roman History	3

Students not completing an official major or minor in Latin in the College of Education but wishing to complete a sufficient number of hours in the field to fulfill the state requirement in Missouri for teaching Latin should consult the official recommendations issued by the State Department of Education. For sequence of courses for those students the above suggested lists should be followed.

Teachers of Mathematics

Students interested in completing a major in mathematics should take the following courses:

Mathematics	Hours
9 and 10 Trigonometry and Algebra	5
11 Analytic Geometry	5
25 Calculus I	5
201 Calculus II	5
304 Advanced Algebra	3
or	
310 Advanced Calculus	3
155 The Mathematics of Finance	3

If a student desires he may take either 305 or 310 or 311 in place of the 155. For a minor in mathematics courses 9, 10, 11, and 25 are required.

Suggested Curriculum for Teachers of Music

Students majoring in Music Education should present a minimum of twenty hours of applied music, including a minimum of eight hours in the field of major performance, eight hours in piano, and four hours in voice.

All majors in Music Education are expected to participate in Band, Orchestra or Chorus each year.

Freshman Year

	Hours
Applied Music Electives	8
Music 3 and 4 Elementary Harmony	6
English 1 and 2 Composition and Rhetoric	6
Music 7 and 8 Ear Training	4
Music 40, 42, or 43 Chorus, Orchestra, or Band	4
¹ History 20 American History	5

Sophomore Year

	Hours
Applied Music Electives	8
Music 101 and 102 Advanced Harmony	4



Industrial Arts majors work with tools and materials.

Music 9 and 10	Ear Training	2
Music	Orchestral Instruments	2
Psychology 1	General Psychology	3
¹ Education A102	Educational Psychology	3
Music 40, 42, or 43	Chorus, Orchestra, or Band	2
¹ Preventive Medicine 25	Preventive Medicine	2

Junior Year

	Hours	
Applied Music	Electives	4
Music 40, 42, or 43	Chorus, Orchestra, or Band	2
Music 321, 322 or 323	The Pre-Classic Period, the Classic and Romantic Periods, or Modern Music	4
Music	Orchestral Instruments	2
Music 149 and 150	Conducting	4
¹ Education D110	Technique of Secondary School Teaching	3
¹ Education J131	Teaching Music in the Elementary School	3
¹ Education J130	Teaching of Secondary School Music	3

Senior Year

	Hours	
Applied Music	Electives	4
Music 40, 42, or 43	Chorus, Orchestra, or Band	2
Music	Orchestral Instruments	4
¹ Education D140	Secondary School Administration for Teachers	2
Education J132	Teaching of Instrumental Music	2
¹ Education E151 and D150	Student Teaching	6
¹ Education B125	History of American Education	3

¹Required.

Men Teachers of Physical Education

A total of twenty credit hours in education, including Educational Psychology, History of Education, Technique of Teaching in the Secondary School, Preventive Medicine or Health Education, Secondary School Administration for Teachers, The Teaching of Physical Education, and Student Teaching must be presented.

Men who select physical education as their major subject should elect zoology in the freshman year, as it is a prerequisite to anatomy. During the first two years they should take Physical Education 41, 42, 43, and 44, in addition to the required courses 1, 2, 5, and 6. They must also take during the first two years Anatomy 201, Elementary Anatomy; Physiology 201, Elements of Physiology; and Preventive Medicine 25; Preventive Medicine.

In the junior and senior years students should complete the following program of studies:

SUGGESTED CURRICULUM FOR TEACHERS OF PHYSICAL EDUCATION—MEN

Junior Year

	Hours	
¹ Education A102	Educational Psychology	3
¹ Education B125	History of American Education	3
Physical Education 55	Informal Activities for Boys and Men	2
Physical Education 151	Community Recreation	3
¹ Education D110	Technique of Secondary School Teaching	3
¹ Education H119	Teaching of Physical Education	2
Physical Education 56	Minor Games	2

Senior Year

	Hours	
¹ Education D150	Student Teaching in the Secondary School ..	5
Physical Education 106	Major Sports	3
Education H380	Body Mechanics	5
Education H152	History and Principles of Physical Education	3
¹ Education D140	Secondary School Administration for Teachers	2
Physical Education 107	Major Sports	3
Education H390	Administration of Physical Education	3

Women Teachers of Physical Education

A total of twenty credit hours in education, including Educational Psychology, History of Education, Technique of Teaching in the Secondary School, Preventive Medicine or Health Education, Secondary School Administration for Teachers or Elementary School Organization and Management, Teaching of Physical Education, and Student Teaching must be presented.

Women who wish to major in physical education are advised to take in the freshman year the following courses: Physical Education 41 and 42. Zoology must be elected in the freshman year as a prerequisite to Anatomy 201. In the sophomore year, students should take Anatomy 201, Elementary Anatomy; Physiology 201, Elements of Physiology; Preventive Medicine 25, Preventive Medicine; Physical Education 43, 44, and 54.

SUGGESTED CURRICULUM FOR TEACHERS OF PHYSICAL EDUCATION—WOMEN

Junior Year*

	Hours
¹ Education A102 Educational Psychology	3
¹ Education B125 History of American Education	3
Physical Education 115 Junior Major Gymnastics and Athletics	3
Physical Education 122 Rhythmic Form of Analysis	2
Physical Education 151 Community Recreation	3
¹ Education D110 Technique of Secondary School Teaching	3
Physical Education 116 Junior Major Gymnastics and Athletics	3
¹ Education H119 Teaching of Physical Education	2
Physical Education 125 Elementary Folk Dancing	2
Physical Education 134 Technique of Swimming	2

Senior Year

	Hours
¹ Education D150 Student Teaching in the Secondary School	5
Physical Education 117 Senior Major Gymnastics and Athletics	3
Education H152 History and Principles of Physical Education	3
Education H380 Body Mechanics	5
¹ Education D140 Secondary School Administration	2
Physical Education 118 Senior Major Gymnastics and Athletics	3
Physical Education 128 Theory of the Modern Dance	2
Education H390 Administration of Physical Education	3

¹Required. Preventive Medicine is also required for graduation.

*Electives must be chosen so as to complete a teaching major or minor in some one teaching field other than physical education.

Electives for Majors in Physical Education

Physical Education courses 57, 58, 140, 155, 156, 160, 162, 365, 366, and 370.

Minor in Physical Education

The Director of Physical Education must be consulted before the election of any course in physical education. The minor is intended to meet the needs of students who wish to combine the teaching of their major subject with physical education.

Men and women students must complete a total of twenty hours in physical education. Physiology 201, Elements of Physiology; Anatomy 201, Elementary Anatomy; and Preventive Medicine 25, Preventive Medicine; must be taken to satisfy requirements of the State Department. The following courses are suggested for the minor for women: Physical Education 54, 115, 116, 117, 118, H119, 125, and H390, and the technique courses in the division in which the student is interested.

The following courses are suggested for the minor for men: Physical Education 41, 42, 43, 44, 55, 56, 106, 107, H152, H390.

Teachers of Physics

Students who choose a major in physics should complete at least ten hours of mathematics in the freshman and sophomore years and continue training in mathematics through calculus during their junior and senior years. It is highly desirable also that students majoring in physics complete sometime during their university training five hours of chemistry.

A major in physics should include:

	Hours	
Physics 1 and 2	Elementary College Physics	8
Physics 23	General Physics	5
Physics 312	Heat and Sound	3
Physics 310	Electricity and Magnetism	3
Physics 211	Light	3
Physics 314	Mechanics	3

and one of the following courses:

Physics 305	Electricity Laboratory	1-2
Physics 225-226	Fundamentals of Physics for High School Teachers I, II	2-4
Physics 308	Light Laboratory	2

For a minor in physics courses 1, 2, 312, 310, and 211 should be completed.

Course Requirements for the Physiology Major

In addition to the required professional courses in Education which all graduates of the College of Education will complete, the student majoring in Physiology must enroll in and complete the following program of studies:

Freshman and Sophomore Years

	Hours
English 1 and 2—English Composition and Rhetoric	6.0
English Elective	3.0
Social Studies (including American History and American Government)	10.0
Chemistry 1—General Inorganic Chemistry	5.0
Zoology 1—General Zoology	5.0
Chemistry 15—Elementary Organic Chemistry	3.0
Mathematics—(unless 3 high school units are presented)	3.0
Bacteriology and Preventive Medicine 25—Preventive Medicine	2.0
Physiology and Pharmacology 201—Elements of Physiology	5.0
Required Physical Education and Military Science	—
Fine Arts (Art and Music)	5.0
Elective	17.0

Junior and Senior Years

	Hours
Botany 202—General Bacteriology	3.0
Anatomy and Histology 201—Elementary Anatomy	4.0
Bacteriology and Preventive Medicine 202—General Hygiene	2.0
Physiology and Pharmacology 202—Advanced Physiology	2-4
Biochemistry 101—Elementary Physiological Chemistry	3-4
Physiology and Pharmacology 250—General Physiology	5.0
or Zoology 4—Comparative Anatomy of Vertebrates	5.0
Electives (including credits toward a suitable minor) to Total	120.0

Course Requirements for the Physiology Minor

	Hours
Zoology 1—General Zoology	5.0
Physiology 201—Elements of Physiology	5.0
Anatomy 201—Elementary Anatomy	4.0
Bacteriology and Preventive Medicine 25—Preventive Medicine	2.0

Total 16.0

Teachers of Social Studies

Because of the breadth of training required by teachers of social studies, it is essential that the students preparing to teach this field should start their preparation early. The following is suggested as the best plan to fit the normal student who intends to major in this field. In

the freshman year the student should take History 1 and 2, Modern Civilization; in the sophomore year the student should take History 20, American History; Political Science 1, American Government; Preventive Medicine 25; and four hours in his minor subject; if he did not take History 1 and 2, Modern Civilization during his freshman year, he should take History 11, Ancient and Medieval History.

SUGGESTED CURRICULUM FOR MAJORS IN SOCIAL STUDIES

Junior Year

		Hours
¹ Education A102	..... Educational Psychology	3
¹ Education B125	..... History of American Education	3
¹ Education D110	..... Technique of Secondary School Teaching	3
Economics 51	..... General Economics	5
History 231	..... Contemporary Europe	3
Sociology 1	..... General Sociology	3
History 251	..... Recent United States History	3
	..... Minor Subject	5

Senior Year

		Hours
Education D121	..... Teaching of Social Studies in the Secondary School	2
¹ Education D140	..... Secondary School Administration for Teachers	2
¹ Education D150	..... Student Teaching in the Secondary School	5
	..... Social Studies Electives*	8
	..... Minor Subjects	8

For a minor in social studies a student must take History courses 1 and 2 Modern Civilization (six hours) or their equivalent, American History, Contemporary Europe, Recent United States History, American Government, General Economics, and five hours of Sociology. He is advised to elect Education D121 Teaching of Social Studies in the Secondary School.

¹Required.

*All social studies electives must be selected with the help of the adviser.

If Preventive Medicine 25, Preventive Medicine, was not taken during the sophomore year, it must be completed during the junior or senior years.

A Laboratory School music group.



Teachers of Spanish

Students interested in completing a major in Spanish should begin early in their college work to train in this field. A minimum of twenty-four hours will be required for a major in Spanish.

For a minor in Spanish, twenty hours will be required. The courses recommended for teachers for a major in Spanish are:

Spanish	Hours
1 Elementary Course	5
2 Intermediate Course	5
103 and 106 Reading and Composition	5
205 Composition and Conversation	3
211 Advanced Composition and Conversation	2

To complete the major or minor, the student should select with the help of the adviser courses from the following list:

Spanish	Hours
222 Commercial Correspondence	2
350 Special Readings	1-3
307 Modern Spanish Drama	2
313 Nineteenth Century Spanish Novel	3

Teachers of Speech

Students majoring in speech are advised to plan their programs systematically in order to complete the requirements for the degree within the minimum time.

Students primarily interested in public speaking and debate should elect during the sophomore year Economics 51, General Economics (5 hours); or Political Science 1, American Government (5 hours); or both. Students primarily interested in interpretation and dramatic art should elect during the sophomore year Art 2, Introduction to Art (3 hours) and Art 3, Appreciation of Art (2 hours).

Requirements for Secondary School Teachers of Speech

The approved major for teachers of speech requires thirty-four hours of courses in speech. Students are advised to complete the underclass requirements before the end of the sophomore year. The approved major is as follows:

Speech	Hours
1 Oral Communication	2
2 Voice and Articulation	2
75 and 76 Public Speaking	6
252 Stagecraft	3
311 American Phonetics	3
322 Speech Correction	3
333 or 334 Oral Interpretation	3
361 Principles of Stage Direction	3
371 Discussion	3
372 Debating	3
381 Principles of Rhetoric	3

In addition to the above courses, students are advised to elect one of the following options:

- (a) Speech 323, Speech Therapy, and Speech 324, Speech Rehabilitation.

- (b) Speech 343, Dramatic Interpretation, and Speech 346, Characterization and Acting.
- (c) Speech 374, Argumentation, and Speech 376, Public Address.

Students majoring in speech are advised to elect the following courses offered in the Department of Classical Languages and Archaeology:

		Hours
Classical Languages 225	.....Classical Drama in Translation	2
Classical Languages 227	.....Classical Oratory in Translation	2

Students preparing to teach speech as their minor field should include in their programs the following courses in the Department of Speech:

		Hours
1	.....Oral Communication	2
2	.....Voice and Articulation	2
75 and 76	.....Public Speaking	6
311	.....American Phonetics	3
333 or 334	.....Oral Interpretation	3
361	.....Principles of Stage Direction	3
372	.....Debating	3
381	.....Principles of Rhetoric	3

Courses in Speech for Elementary Teachers

Elementary school teachers who wish to elect their subject-matter courses in the field of speech are advised to take the following courses:

		Hours
311	.....American Phonetics	3
322	.....Speech Correction	3
323	.....Speech Therapy	3
324	.....Speech Rehabilitation	3
326	.....Audiometry	3

The foregoing courses are recommended also for teachers wishing to be approved as speech clinicians in the public schools of Missouri.

Speech Examinations

In addition to formal course requirements, students majoring in speech are required to take two examinations for adequacy in voice and articulation. These examinations do not cover the subject matter of courses but are designed to determine whether the student's own speech is satisfactory. Students who reveal serious deficiencies in their own speech at the first examination will be told what improvement is expected of them; or, if it is apparent that satisfactory improvement cannot be made within a reasonable time, will be discouraged from undertaking a major in speech. The second examination must be taken and passed immediately prior to the student's being recommended for graduation. The examinations are administered under the direction of the departmental adviser, who should be consulted for further information.

Extra-Curricular Opportunities

Students planning to teach speech are strongly encouraged to take part in dramatics and forensics. The direction of public speaking and dramatic activities is often required of the high school teacher of speech; and university experience in dramatics and in forensics is decidedly

helpful to teachers of speech, both in securing placement and in maintaining a standard of excellence in teaching.

The Speech Clinic

Work with cases in the Speech Clinic is likewise valuable in securing placement and in carrying on all teaching in speech. At the discretion of the director, students who have completed Speech 322, Speech Correction, may observe, and those who have completed Speech 323, Speech Therapy, or Speech 324, Speech Rehabilitation, or Speech 326, Audiometry, may participate in the work of the Clinic.

Teachers of Vocational Agriculture and Home Economics

See "Teachers of Agriculture" under the College of Education.

See also the curriculum for training of teachers of vocational agriculture, listed as Curriculum B in the College of Agriculture.

SUGGESTED CURRICULUM FOR TEACHERS OF VOCATIONAL HOME ECONOMICS

General Subjects

	Hours
English 1 and 2	6
English	3
Social Studies	10
Mathematics	3
Physical Education	4

Sciences

	Hours
Chemistry 1	5
Chemistry 15	3
Botany 202	3
Physiology 201	5

Education

	Hours
Education G75	3
Education A102	3
Education B125	3
Education D110	3
Education D140	2
Education D150	5
Education F175	3
Education F180	3

Home Economics

	Hours
Home Economics 31	5
Home Economics 10	2
Home Economics 15	2
Home Economics 16	2
Home Economics 20	2
Home Economics 50	3
Home Economics 51	3
Home Economics 110	3
Home Economics 115	4
Home Economics 217	3
Home Economics 127	3
Home Economics 131	3
Home Economics 222	4
Home Economics 145	2
Home Economics 150	3
Home Economics 160	3
Electives	13-16

Graduate Work

Graduate work in Education leads to the following degrees: Master of Education and Doctor of Education; Master of Arts and Doctor of Philosophy.

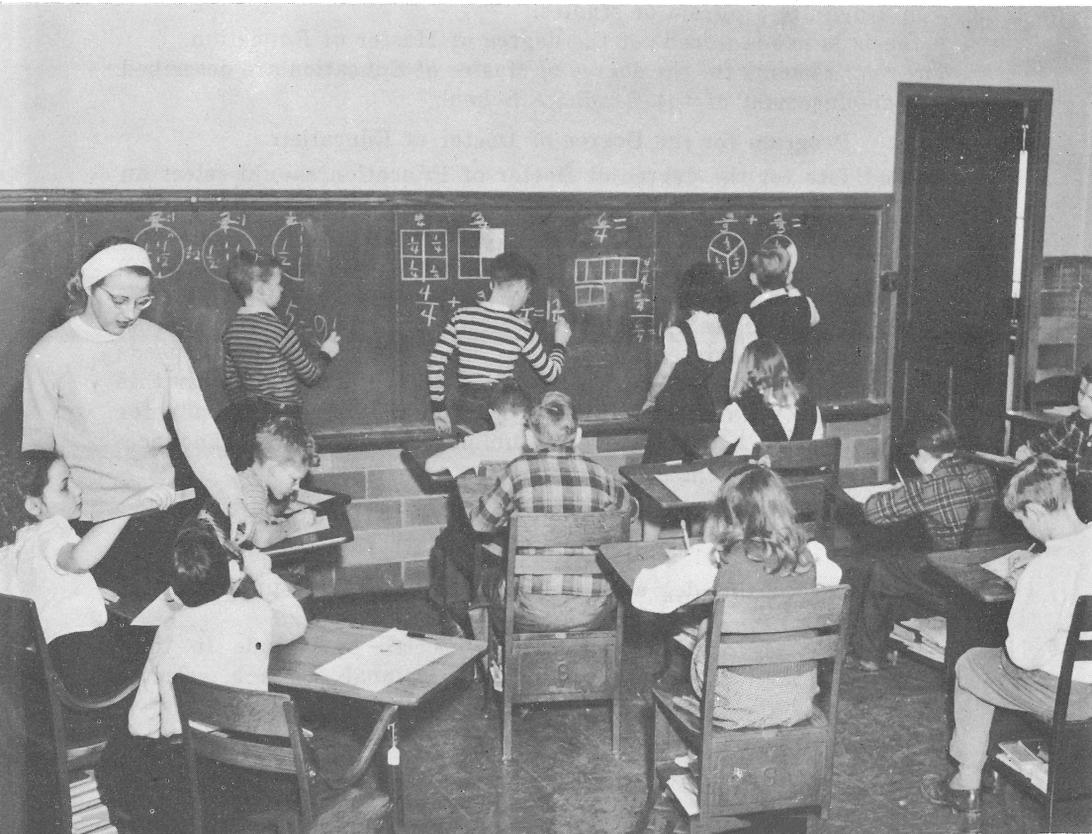
To be admitted to candidacy for the degree of Master of Education, students must have completed not less than fifteen hours of work in undergraduate courses in Education in an approved institution.

To be admitted to candidacy for the degree of Master of Arts with a major in Education, students must have completed at least fifteen hours of professional Education courses including courses in Educational Psychology, History or Principles of Education, School Administration, Organization and Management, and Techniques of Teaching.

Major Adviser

Graduate students in Education should decide first of all as to the particular area of school work for which they wish to prepare. They should then consult the faculty adviser in the field of their major interest and with him make out a complete program of studies for the desired degree. Some of the fields of specialization with the names of the

Student teachers work with children.



appropriate advisers in the Department of Education are listed below:

Graduate Specialty	Faculty Adviser	Room No.
Educational Psychology	Mr. Irion	209 Education
History and Philosophy of Education	Mr. Drake	312 Jesse
City, County, and State School Administration	Mr. Capps	217A Jesse
	Mr. Carpenter	304 Jesse
Educational Tests and Measurements	Mr. Capps	217A Jesse
Secondary Education	Mr. Rufi	323 Jesse
	Mr. Watkins	221 Jesse
Teaching of English	Mr. Moffett	205 Jesse
Elementary Education	Mr. Artley	209 Education
	Mr. Phillips	122 Switzler
	Mr. Townsend	212 Education
Agricultural Education	Mr. Ekstrom	122 Waters
Home Economics Education	Miss Irons	107 Gwynn
Industrial Education	Mr. London	202 Industrial Arts
Guidance and Counseling	Mr. Polmantier	T-2
	Mr. Roeber	T-2
Physical Education	Mr. Hindman	205 Read
	Mr. Matthews	105 Rothwell
Speech Education	Mr. Aly	321 Switzler
Music Education	Mr. Van Bodegraven	211 Lathrop

Program for the Degree of Master of Education

The candidate should select a definite program of studies with the assistance of his adviser. In general, an attempt is made to plan a program which will fit the individual needs of the candidate and for that reason courses other than those recommended for all students are not listed in a definite program of studies.

A thesis is not required for the degree of Master of Education.

The requirements for the degree of Master of Education are described in the Announcement of the Graduate School.

Program for the Degree of Doctor of Education

A candidate for the degree of Doctor of Education should select an adviser from the published list and should have a consulting committee appointed by the Dean of the Graduate School through his major adviser. The major adviser will confer with the candidate relative to his program and will then with the assistance of the consulting committee prepare a program of studies leading toward the degree. The degree of Doctor of Education is especially intended to meet the professional needs of the candidate. The program of studies will be planned with this objective in view. Further statements concerning the requirements for the degree of Doctor of Education are published in the official Announcement of the Graduate School.

Program for the Degree of Master of Arts with a Major in Education

Candidates for this degree must choose an acceptable program with the major adviser.

All candidates for this degree are expected to include in their programs three courses in techniques of educational research, selected

from the following list:

	Hours
Education A302.....Group Intelligence Testing	3
Education C370.....Educational Statistics	2½-3
Education C401.....Methods of Educational Research	2
Education C435.....Advanced Educational Statistics	2½-3
Education D407.....Tests and Measurements for Secondary Schools	3
Education E405.....Tests and Measurements for Elementary Schools	3

A thesis will be required of all candidates for the degree of Master of Arts with a major in Education. The amount of credit allowed for such a thesis shall be from four to eight hours. The thesis must give evidence of a mastery of the fundamentals of educational research.

A detailed statement of the further requirements and regulations governing this degree will be found in the Announcement of the Graduate School.

Program for the Degree of Doctor of Philosophy with a Major in Education

The degree of Doctor of Philosophy is a research degree, and the dissertation offered in partial fulfillment of the requirements must give evidence of mastery of research methods in the field of Education.

The program for the degree of Doctor of Philosophy with a major in Education is based on the work for the degree Master of Arts with a major in Education. Candidates who have the degree Master of Education will find it necessary to carry, as part of their doctoral program, the technical

Women students in an archery class.



courses in educational research which are listed as requirements for the degree Master of Arts, increasing the total amount of course work for the degree Doctor of Philosophy.

Suggested Courses for College Teachers

Advanced graduate students planning to take up college teaching and desiring professional training courses as part of their preparation are advised to consider the following courses:

	Hours
Education B473.....Philosophy of Higher Education in the United States ..	3
Education C473.....Junior College Administration	2-3
Education D473.....College Teaching	2

Other courses which may be of special value and which may be taken, provided the student meets the prerequisites, are:

	Hours
Education A405.....Psychology of Education	2½-3
Education B471.....Philosophy of Education	2½-3
Education D403.....Problems of Teaching History in College	2

Students planning to teach Education courses in junior colleges should have special preparation in Education with an emphasis on elementary education.

For further information concerning the College of Education, address:

L. G. Townsend
 Dean of the Faculty
 College of Education
 212 Education Building
 University of Missouri
 Columbia, Missouri

EDUCATION

(A) Educational Psychology

A102 Educational Psychology (3) f, w.

A general elementary course designed to acquaint the student with the scientific principles underlying education. MR. CARTER; MR. IRION.

A140 Diagnostic Testing and Remedial Teaching (3) f, w.

Prerequisites, A102, E121. Technique of using educational and mental tests in the improvement of instruction. Primarily for elementary school teachers. MR. CARTER.

A302 Group Intelligence Testing (3) f.

Prerequisites, A102 and C 370 or equivalent training. A study of the principles of psychometrics and a critical examination of various group tests of ability. MR. CARTER.

A303 Individual Intelligence Testing (3) w.

Prerequisite, A302 or equivalent training. Study of the Stanford-Binet Scale and other individual tests of intelligence. Practice in administering and interpreting the tests. MR. CARTER.

A339 The Psychology of the Atypical Child (3) f.

Prerequisite, A102. A study of the special psychological and educational problems of the child who deviates from the normal. MR. ARTLEY.

A400 Special Investigations in Educational Psychology (credit to be arranged) f, w.

MR. CARTER; MR. IRION.

A405 The Psychology of Education (2½-3) f.

An advanced course covering the entire field of educational psychology. MR. IRION.

A407 Psychology of the Elementary School Child (3) w.

Prerequisite, A405. The application of educational psychology to problems of teaching in the elementary school. MR. ARTLEY.

A408 The Psychology of Secondary Education (2-3) w. s.

A critical psychological analysis of studies and investigations of the various aspects and activities of the secondary school. MR. IRION.

A410 Seminar in Educational Psychology (1-3) f, w.

MR. ARTLEY; MR. CARTER; MR. IRION.

A490 Research in Educational Psychology (credit to be arranged) f, w.

MR. ARTLEY; MR. CARTER; MR. IRION.

(B) History and Philosophy of Education

B125 History of American Education (3) f, w.

A comprehensive study of the development of American education. Stresses American educational ideals, the American school systems, and the social forces affecting American education. MR. DRAKE.

B390 Comparative Education (2) w.

A comparative study of representative systems of education in South America, Europe, and Asia in contrast with the American system. MR. DRAKE.

B397 The Origins of Modern Education (2-3) f.

Prerequisite, B125. A study of educational practices and theory from ancient times to the present. Emphasizes the historical setting of present-day education. MR. DRAKE.

B400 Special Investigations in the History and Philosophy of Education (credit to be arranged) f, w.

MR. DRAKE.

B410 Seminar in the History and Philosophy of Education (1-3) f, w.

MR. DRAKE.

B471 Philosophy of Education (2½-3) f.

A study of the fundamentals of education in the light of modern science and philosophy. MR. DRAKE.

B473 Philosophy of Higher Education in the United States (3) s.

A study of the main issues confronting higher education in America today. MR. DRAKE.

B481 Evolution of Educational Thought (2½-3) w.

Prerequisite, B397 or B471. A study of the great historic movements and ideas which have affected modern educational practices. MR. DRAKE.

B490 Research in the History and Philosophy of Education (credit to be arranged) f, w.

MR. DRAKE.

(C) Educational Administration

C370 Educational Statistics (2½-3) f.

Statistical methods for teachers, supervisors, superintendents, and beginning graduate students. MISS DOOLITTLE.

C390 Introduction to Educational Administration (2-3) f.

A survey of the field of educational administration designed to introduce the student to a more critical study of the field. MR. CARPENTER.

C400 Special Investigations in Educational Administration (credit to be arranged) f, w.

MR. CAPPS; MR. CARPENTER.

C401 Methods of Educational Research (2) f.

Prerequisite, course C370 or equivalent. Principles and techniques of attacking problems in education. Preparation of manuscripts for theses, dissertations and printed reports. MR. CAPPS.

C410 Seminar in Educational Administration (½-3) f, w.

MR. CAPPS; MR. CARPENTER.

C411 State and National School Administration (2-3) f.

A fundamental course in the principles and practices of national, state, and county educational administration. MR. CARPENTER.

C412 City School Administration (2-3) w.

The principles and problems growing out of the relationships between the local board of education, the employed personnel, and the community. MR. CARPENTER; MR. TOWNSEND.

C413 Administration of Pupil Personnel (2) f.

Prerequisite, E120 or D140 or equivalent. Problems of pupil-progress in the public school system. MR. CARPENTER.

C414 School Building Problems (2-3) w.

The responsibility of the school administrator for the construction, operation, and maintenance of school buildings. MR. CARPENTER, MR. MAXWELL.

C435 Advanced Educational Statistics (2½-3) w.

Prerequisites, courses C370 and E405 or D407 or their equivalent. Advanced problems in partial correlation, reliability, index numbers and test and scale construction. MR. CAPPS.

C440 School Finance (2-3) w.

Fundamental principles and techniques of public school finance. MR. CARPENTER; MR. MAXWELL.

C441 Problems in School Finance (2-3) w.

Prerequisite, C440. Advanced problems in public school finance. MR. CARPENTER.

C442 The School Audit (2) s.

A study of the principles of school audits, including methods of improving financial management. Actual experience in making audits and in preparing school budgets. MR. CARPENTER.

C446 School Surveys (2-3) w.

Prerequisites, C411 and either C412 or C414. The technique of the school survey and its use as an instrument of self-appraisal. MR. CAPPS; MR. CARPENTER.

C451 Problems in State and National School Administration (2-3) f.

Prerequisite, C411. MR. CARPENTER.

C452 Problems in Public Relations (2-3) s.

Prerequisite, C412. MR. CARPENTER; MR. TOWNSEND.

C453 Advanced School Building Problems (2-3) f.

Prerequisite, C414. MR. CARPENTER.

C454 Problems of School Law Revision (2-3) w.

Prerequisite, C411. MR. CARPENTER.

C470 In-Service Course in Educational Administration (credit to be arranged) f, w.

MR. CAPPS; MR. CARPENTER.

C473 Junior College Administration (2-3) f.

The organization and administration of the junior college. MR. CARPENTER.

C490 Research in Educational Administration (credit to be arranged) f, w.

MR. CAPPS; MR. CARPENTER.

(D) Secondary Education**D110 Technique of Secondary School Teaching (3) f, w.**

Prerequisite, Education A102. This course deals with the activities of teachers and pupils in the development of learning in various courses in the secondary school. MR. WATKINS.

D111 Teaching of English (2) f.

Prerequisite, A102. The teaching of language and composition. MISS GREEN.

D112 Teaching of English (2) w.

Prerequisite, A102. The teaching of reading and literature. MISS GREEN.

D113 Teaching of Speech (2)

Prerequisite, A102. Aims, standards, problems and methods in the conduct of high school courses in speech improvement, oral interpretation, dramatics, public speaking and debating. MR. ALY.

D115 Teaching of Art (2 or 3) f.

Deals with art education as related to elementary and secondary school curriculum. Art experiences are considered from the standpoint of the child's interest and development. MISS WULFEKAMMER.

D116 Fundamentals of High School Mathematics (5) f, s.

This course is a composite of subject matter, methodology and apprenticeship teaching. It is intended for retraining purposes.

D117 Fundamentals of High School Science (5) f, s.

This course is a composite of subject matter, methodology, and apprenticeship teaching. It is intended for retraining purposes.

D118 Teaching of Modern Languages (2) f, w.

Prerequisite, A102. MR. JESSE; MISS NAGEL; MR. SCHERR.

D120 Teaching of Commercial Subjects (2) f.

Teaching techniques, materials of instruction, current problems and trends in the major high school commercial courses. MISS WILLIAMS.

D121 Teaching of Social Studies in the Secondary School (2) f.

Required of social studies majors and elective for minors. Fundamental problems of teaching social studies on the high school level are considered. Prerequisite, A102. MISS HARTWIG.

D122 Organization of Social Studies in the Secondary School (2) w.

Prerequisite, A102. Elective for majors and minors in social studies. Theory and practice in organizing social studies courses into units. MISS HARTWIG.

D124 The Teaching of General Science (2) w.

Prerequisite, A102. MR. WYATT.

D125 The Teaching of Latin (2) f.

Prerequisite, A102. Study of the content of the high school course in Latin, and the methods of attaining objectives in the teaching of the language. MR. GWATKIN.

D128 Teaching of Mathematics in the Secondary School (2) f.

Prerequisite, A102. MISS DOOLITTLE.

D132 Elementary Typewriting (2) f.

A fundamental course in touch typewriting for the purpose of mastering the keyboard and operative parts of the machine. MISS LANG.

D133 Intermediate Typewriting (2) w.

Instruction and practice directed toward improvement of speed and accuracy. MISS LANG.

D134 Advanced Typewriting I (2) f.

Preparation of various personal, business, and professional papers and forms with intensive practice on the development of high standards of speed and accuracy. MISS WILLIAMS.

D135 Advanced Typewriting II (2) w.

Typewriting problems representative of various procedures in business offices; training in use of office machines: mimeograph, carbon duplicator, dictating and transcribing machine, adding-calculator, etc. MISS WILLIAMS.

D136 Elementary Stenography (3) f.

An elementary study of the theory of Gregg shorthand and the development of shorthand reading and writing techniques. MISS WILLIAMS.

D137 Intermediate Stenography (3) w.

Completion of the study of the theory of shorthand writing correlated with dictation and transcription practice. MISS WILLIAMS.

D138 Advanced Stenography (2) f.

Review of the principles of shorthand theory; intensive practice in dictation, reading, and transcription; study of filing procedure and practices. MISS LANG.

D139 Secretarial Practice (2) w.

Difficult reading and dictation matter and a study of the nature of secretarial work. MISS LANG.

D140 Secondary School Administration for Teachers (2) f, w.

Prerequisite, A102. Problems of effective methods of school management from the standpoint of teachers in secondary schools. MR. RUFF.

D141 Accounting for Teachers (3) f.

Introductory subject-matter course to give the teacher a basic knowledge of accounting principles as a foundation for high school courses in bookkeeping and accounting. MISS WILLIAMS.

D150 Student Teaching in the Secondary School (credit to be arranged) f, w, s.

Prerequisite, D110. Hours and credit must be arranged with instructor before registration. Application should be made in the term preceding registration. MR. MAXWELL; MR. TOWNSEND.

D371 Problems in Visual Education (2) s.

Prerequisites, A102 and E121 or D110. For classroom teachers. Evaluation of visual education procedures and classroom instruction, including the preparation of visual education materials.

D372 Problems of the Teacher-Librarian in the Secondary School (2½-3) s.

This course will deal with typical library problems in the average high school. It will emphasize the work of the teacher-librarian.

D373 The Administration of School Libraries (2-3) s.

Study of problems of organization and administration of public school libraries, including selection and acquisition of materials and their preparation for use.

D400 Special Investigations in Secondary Education (credit to be arranged) f, w.

THE STAFF.

D401 Extra-Curricular Activities (2½-3) s.**D403 Problems of Teaching History in College (2) f, s.**

(Same as History 403.) Emphasis upon teaching the general courses. Some attention to work in related fields. Required for all Ph.D. candidates in history and recommended for A.M. candidates. MR. ATHERTON AND STAFF.

D406 Secondary School Administration (2½-3) f, w.

Prerequisite, D140 or its equivalent. Deals with the problems of administration from the point of view of the high school principal. MR. RUFF.

D407 Tests and Measurements for Secondary Schools (3) f, w.

Study of educational tests and measurements for purposes of classification of students and for improvement of instruction in various subject matter fields in secondary schools. MR. CAPPS; MISS DOOLITTLE.

D410 Seminar in Secondary Education (1-3) f, w.

THE STAFF.

D412 Problems in the Teaching of General Science (2) w.

For teachers and supervisors of science. Problems of organization, content, and teaching. Includes a summary of the investigations on teaching of science. MR. WATKINS; MR. WYATT.

D413 Methods in English Literature in Secondary Schools (2) s..

MR. MOFFETT.

D414 Methods in English Composition in Secondary Schools (2) s.

MR. MOFFETT.

D415 Secondary School Supervision (3) w.

Methods of improving instruction in junior and senior high schools. MR. RUFI.

D420 Problems in the Teaching of Social Studies (3) w, s.

A graduate course for major and minors in social studies dealing with objectives, methods, curriculum and other problems in junior and senior high schools. MR. ENGLISH.

D430 The Junior High School (2) w.

A survey of the progress of the junior high school including a study of the more important problems of organization and administration. MR. RUFI.

D440 The Improvement of Secondary School Teaching (2) w.

For secondary school teachers, principals and superintendents with considerable training in education and experience in teaching. Deals with recent developments in secondary school teaching. MR. WATKINS.

D444 Selected Problems in Secondary School Administration (3) w.

This course will emphasize major problems encountered in the organization and management of the modern secondary school. Prerequisite, D406, or equivalent. MR. RUFI.

D445 The Secondary School Curriculum (3) f.

For secondary school principals, teachers and superintendents. Deals with present trends in curricular change and methods of curricular investigation. MR. WATKINS.

D446 Curriculum Construction for Secondary Schools (3) w.

Prerequisite, D445 or permission of the instructor. Designed for those engaged in curriculum revision work and in the construction of new secondary school courses. MR. WATKINS.

D470 In-Service Course in Secondary Education (credit to be arranged) f, w.

THE STAFF.

D473 College Teaching (2) f.

Primarily for students who expect to teach in junior or senior colleges, or in teachers colleges. Important practical matters in college teaching will be considered MR. WATKINS.

D490 Research in Secondary Education (credit to be arranged) f, w, s.

THE STAFF.

(E) Elementary Education**E90 The Elementary School (2-3) f.**

A beginning class in school management for students preparing for the sixty-hour certificate.

E91 Teaching in the Elementary School (4-6) w.

A beginning course in techniques and methods of teaching for students preparing for the sixty-hour certificate. May include supervised student teaching.

E96 Children's Literature (2) s.

MISS FARTHING.

E97 Conservation for Elementary School Teachers (2-3) s.**E98 Introduction to Science for Elementary School Teachers (2-3) s.**

MR. WYATT.

E99 Arithmetic for Teachers (2) f.

MISS KNOWLES.

E107 Teaching of Geography in the Elementary School (2) f.

Prerequisite, Geography 6, or 60 hours of college credit. A study of the methods involved and the geographic knowledge needed in the teaching of geography.

E118 Art Activities in the Kindergarten and Primary Grades (3) f.

Consideration of art activities as related to the interests and experiences of children. Stresses integration of art activities. Provides laboratory experience with various media. MISS WULFEKAMMER.

E119 Art Activities in the Intermediate Grades (3) w.

Consideration of art and handwork activities as a part of the regular school program. Provides laboratory experience with various media and study of art principles. MISS WULFEKAMMER.

E120 Elementary School Organization and Management (3) f.

A study of the major problems of organization and management from the point of view of the teacher in the elementary school. MR. MAXWELL.

E121 Technique of Teaching in Elementary Schools (2-3) f, w, s.

Prerequisite, A102. A study of current principles and practices relating to the instructional activities of the elementary classroom teacher. MR. MAXWELL.

E122 Child Study (3) f.

Prerequisite, A102. Presents the physical, mental, social and emotional growth of the child from the pre-natal period to the sixth year. MISS TAYLOR.

E123 Kindergarten Methods and Management (3) w.

A course in kindergarten theory and practice. MISS TAYLOR.

E131 Field Work in Improvement of Teaching (2-6)**E151 Assistant in the Elementary School (credit to be arranged) f, w, s.**

Prerequisites, A102 and E121. Hours and credit must be arranged with the instructor before registration. Application should be made in term preceding registration. MR. MAXWELL; MR. TOWNSEND.

E308 Primary Materials and Methods (3) s.

Prerequisites, A102 and E121. A critical study of principles, techniques and materials used to organize the curriculum of the first three grades.

E325 Primary Materials and Methods in Reading (3) s.

Prerequisites, A102 and E121. A study of the materials and methods used in teaching reading in the elementary grades. MR. ARTLEY.

E330 Workshop in Radio Education (2) s. (Approved for summer only, extension credit.)

Prerequisites, senior or graduate standing.

E340 Supervision of Art Activities (2) w.

Consideration of the purposes and practices of art experiences in the elementary and secondary schools. Designed for teachers, supervisors, and administrator. MISS WULFEKAMMER.

E365 Problems in the Teaching of Reading (2-3) w.

Prerequisites A102 and E121 or D110. A study of the fundamental problems met in teaching reading, particularly in the upper grades and high school. MR. ARTLEY.

E366 Problems of Teaching Literature in the Grades (2-3) f.

Prerequisites, A102 and E121. Wide reading in children's literature and development of instructional techniques. Graduate credit requires fifteen semester hours of English for admission.

E367 Problems of Teaching Arithmetic in the Elementary Schools (2) w.

Prerequisite, A102 and E121. Presents purposes, techniques and materials. Observation and study of arithmetic classes in the Laboratory School. MISS KNOWLES.

E368 Problems of Teaching the Social Studies in the Elementary School (2) w.

Prerequisites, A102 and E121. Problems in the preparation and teaching of units with suitable materials and techniques. Additional assignments for graduate credit. MISS FARTHING.

E369 The Analysis and Correction of Reading Disabilities (2-3) s.

Prerequisites, A102 and D110 or E121. A study of causes of reading disabilities and of the procedures that may be used to diagnose and correct them. MR. ARTLEY.

E370 Elementary School Curriculum (2) f.

Prerequisites, A102 and E121. A survey of modern educational thought with regard to objectives, content and methods in the elementary school curriculum. MR. TOWNSEND.

E375 Rural School Supervision (2)

A course intended primarily for country school superintendents. A critical examination of some of the important problems of rural school supervision will be included. MR. EUBANK.

E400 Special Investigations in Elementary Education (credit to be arranged) f,w, s.

Selected problems to meet the needs of individual students. THE STAFF.

E404 Elementary School Supervision (3) f.

The course is organized to study such problems in the field of supervision as will meet the needs of superintendents, principals, and special supervisors. MR. PHILLIPS.

E405 Tests and Measurements for Elementary Schools (3) w.

Study of educational tests and measurements for the elementary schools from the points of view of the teacher, the supervisor, and the administrator. MR. CAPPS; MISS DOOLITTLE.

E406 Curriculum Construction in Elementary Schools (3) w.

Prerequisites, A102 and E121. MR. PHILLIPS.

E408 Elementary School Administration (3) w.

A specialized course in elementary school administration for school administrators, supervisors and teachers. MR. TOWNSEND.

E410 Seminar in Elementary Education (1-3) f.

THE STAFF.

E415 Clinical Problems in Child Study I (3)

Prerequisites, A303, E325 or E365, and E369. A course providing clinical experience in diagnosing educational and related psychological learning problems of school children.

E416 Clinical Problems in Child Study II (3)

Prerequisites, A303, E325 or E365, E369, and E415. A course providing clinical experience in applying remedial procedures to children having educational and related learning problems. MR. ARTLEY.

E470 In-Service Course in Elementary Education (credit to be arranged) f, w.
THE STAFF.**E490 Research in Elementary Education (credit to be arranged) f, w.**
THE STAFF.**(F) Vocational Education****Agricultural Education****F100 Foundations of Vocational Agriculture (3) f.**

An orientation course for students majoring in agricultural education. (Prerequisite to other professional courses in agricultural education.) MR. EKSTROM; MR. RODERICK.

F105 Special Methods in Teaching Vocational Agriculture (3) w.

The methods of teaching vocational agriculture in secondary schools. MR. EKSTROM; MR. RODERICK.

F107 Supervised Farm Practice in Vocational Agriculture (2) w.

A study of principles and practices involved in the development of supervised farming programs as applied to the teaching of vocational agriculture. MR. RODERICK.

F120 Community Educational Activities in Vocational Agriculture (2) w.

A study of programs in vocational agriculture for out-of-school groups with particular emphasis on young farmer and adult farmer classes. MR. EKSTROM.

F156 Student Teaching in Vocational Agriculture (credit to be arranged) f, w.

Supervised observation of vocational agriculture teaching and actual participation in teaching activities together with conferences as provided. MR. EKSTROM; MR. RODERICK.

F300 Special Problems in Agricultural Education (credit to be arranged) f, w.

Individual study of special phases of agricultural education.

F310 Vocational Agriculture in the Secondary School (2-3)

Problems pertaining to the high school program of vocational agriculture with emphasis upon organization of courses and application of instruction. Prerequisites F100, F105. MR. EKSTROM; MR. RODERICK.

F320 Adult Education Problems in Vocational Agriculture (2-3)

Objectives, organization, and procedures for conducting classes in vocational agriculture for out-of-school groups. Prerequisite F100, F120. MR. EKSTROM.

F400 Special Investigations in Agricultural Education (credit to be arranged) f, w.

THE STAFF.

F410 Seminar in Agricultural Education (1-3) f, w.

THE STAFF.

F440 Problems in Agricultural Education (2-4) f, w.

Group study in current and advanced problems in the teaching and administration of agricultural education.

F451 Evaluation and Program Planning in Agricultural Education (2-4) f, w.

Surveying needs and establishing goals and objectives. Developing programs with suggestions as to means of accomplishment and evaluation of outcomes. Prerequisite F310. MR. EKSTROM.

F470 In-Service Course in Agricultural Education (credit to be arranged) f, w.

THE STAFF.

F490 Research in Agricultural Education (credit to be arranged) f, w.

THE STAFF.

Industrial Education

F5 Mechanical Drawing for Teachers (3) s.

Sketching, lettering, pictorial drawing, orthographic projection, dimensioning, developments, working drawings and blue print reading.

For Engineering Drawing and Descriptive Geometry, see Mechanical Engineering

F8 General Shop (3) f, s.

An introductory course in industrial arts, involving a study of the common tools, materials, processes, and products of industry.

F10 Fundamentals of Woodwork (3) w, s.

Hand tool processes, machine operation, wood and wood products, assembling and fastening, simple finishing.

F12 General Metal Work (3) w, s.

A study of the tools, materials, and processes involved in sheet metal, ornamental iron work, welding, forging, casting, bench work, and the machining of metals.

F14 Applied Electricity (3) f, s.

Projects and related studies involving principles of electricity, electrical construction, repair and maintenance.

F106 Advanced Woodwork (3) w, s.

Design, construction and finish of original projects in wood, involving machine operations, spray gun finishing, inlaying and upholstering.

F115 Tools and Materials (2) w, s.

Sources, manufacture, supply and cost of shop materials and equipment; sharpening, care and repair of hand and machine tools.

F125 Art Metal Work (2) w, s.

Forming, heat treating, soldering, spinning, etching, electro-plating, polishing and finishing of projects in brass, copper, aluminum, pewter and silver.

F150 Industrial Art Design (3) w, s.

Principles of structural design, contour and surface enrichment applied to three dimensional objects; sketches, detail and working drawings of shop projects.

F160 Architectural Drawing and Home Design (3) f, s.

Problems and procedures in planning and constructing a home. The student will draw and write the specifications for a complete set of house plans.

F301 Special Problems in Industrial Education (credit to be arranged) f, w, s.**F321 Vocational Guidance (2-3) f, s.**

Problems methods and procedures involved in assisting individuals to choose, prepare for, enter upon, and progress in their vocations. For teachers, counselors, school administrators. MR. LONDON.

F365 Occupational Analysis (2) f, s.

Techniques and procedures of analyzing occupations into their basic elements. Required of trade teachers, coordinators, and teachers of distributive subjects. MR. KARNES.

F375 Selection and Organization of Subject Matter (2) w, s.

Objectives, content selection and arrangement, preparation of job and informational assignments, course making. For shop teachers, coordinators, and teachers of distributive education. MR. KARNES; MR. LONDON.

F390 Principles of Trade and Industrial Teaching (2-3) f, s.

The shop teacher's job; learning in the school shop; discipline and shop management; teaching devices and procedures; measurement of achievement; inter-school and community relations. MR. KARNES; MR. LONDON.

F392 Problems of the Coordinator (2) s.

Problems and procedures in the operation of cooperative part-time and evening school programs. Restricted to those who can qualify as coordinators. MR. KARNES.

F396 Organization and Administration of Industrial Education (2-3) w, s.

Problems and procedures in organizing and administering all-day, part-time, and evening industrial programs. Federal laws, state plans, local practices. For teachers, supervisors, administrators. MR. KARNES; MR. LONDON.

F398 Organization and Supervision of Distributive Education (2) s.

Legal, administrative and supervisory aspects of distributive education as it operates under the George-Barden Act and the State Plan for Vocational Education.

F401 Special Investigations in Industrial Education (credit to be arranged) f, w.

THE STAFF.

F404 History of Industrial Education (2) s.

Development of industrial education in America, with special attention to European influences, philosophical concepts, issues, motivating factors, leaders, movements, and current trends. MR. KARNES; MR. LONDON.

F406 Problems of Adult Education (2-3) s.

Rise of adult education movement; learning abilities, educational interests and needs of adults; problems and procedures in organizing and operating adult education programs. MR. KARNES; MR. LONDON.

F411 Philosophy of the Practical Arts and Vocational Education (2) f, s.

Nature and purpose of the practical arts and vocational education in the modern school. For teachers of agriculture, business, home economics, industrial subjects, and administrators. MR. KARNES; MR. LONDON.

F412 Seminar in Industrial Education (1-3) f, w.

THE STAFF.

F415 Occupational Surveys (3) s.

Problems, methods and procedures in planning and conducting community occupational surveys. For counselors, teachers, supervisors of vocational education, school administrators, and employment service personnel. MR. KARNES; MR. LONDON.

F471 In-Service Course in Industrial Education (credit to be arranged) f, w.

THE STAFF.

F491 Research in Industrial Education (credit to be arranged) f, w.

THE STAFF.

Home Economics Education

Student Teaching of Vocational Home Economics. See D150.

F175 Organization of Vocational Home Economics (3) f, w.

The vocational course, preparation of units and lesson plans, methods of teaching, books, illustrative material, and equipment are studied in this course. MISS IRONS.

F180 Methods of Teaching Vocational Home Economics and Related Subjects (3) f, s.

Prerequisite F175. This course deals with goals, content, and methods of teaching home economics, art, and science related to the home. MISS IRONS; MISS ALEXANDER.

F402 Special Investigations in Home Economics Education (credit to be arranged) f, w.

THE STAFF.

F413 Seminar in Home Economics Education (1-3) f, w.

THE STAFF.

F430 Supervision of Student Teaching of Vocational Home Economics (credit to be arranged) f, s.

Prerequisites D150, F175, F180. Planned for those who are preparing to become supervisors of students teaching in vocational training centers. MISS IRONS.

F446 Curriculum Construction in Home Economics (credit to be arranged) s.

Planned for home economics teachers who are engaged in curriculum revision work. MISS IRONS; MISS ALEXANDER.

F472 In-Service Course in Home Economics Education (credit to be arranged) f, w.

THE STAFF.

F473 Problems in Home Economics Education (3) f, s.

This course furnishes opportunities for experienced teachers to study problems of teaching, supervision, critic teaching or administration of home economics and related subjects. MISS IRONS.

F492 Research in Home Economics Education (credit to be arranged) f, w.

THE STAFF.

(G) Guidance and Counseling

G75 Introduction to Education (3) f, w.

A study of education as a profession. Description of training programs required to reach objectives. Analysis of individual aptitudes and vocational choices. MR. EUBANK, MR. TOWNSEND.

G395 Principles and Practices of the Guidance Program (3) f.

A survey of the recent literature pertinent to such problems of guidance as objectives, and the materials and techniques for the realization of these objectives. MR. POLMANTIER, MR. ROEBER.

G397 Occupational and Educational Information (3) prerequisite, G395 and F321.

A study of sources, evaluation, collection, filing, and educational information. MR. ROEBER.

G400 Special Investigations in Guidance and Counseling (credit to be arranged) f, w.

MR. POLMANTIER, MR. ROEBER.

G404 The Individual Inventory (3) prerequisite, G395 or F321.

A technical study of individual inventory data and procedure. What information is needed, where it is found, how it is assembled, and how it is used in the counseling process. MR. POLMANTIER, MR. ROEBER.

G406 Mental Hygiene (2½-3) w.

Prerequisite, A405 or equivalent. The psychology of adjustment. A review of the studies and researches in the fields of psychology of improved self-management. MR. POLMANTIER.

G407 Methods and Techniques of Counseling (2½-3) f.

Prerequisite, G395. A course for deans, principals, advisers and sponsors of high school and college students. MR. POLMANTIER, MR. ROEBER.

G408 Problems in Organization and Administration of the Guidance Program (2½-3) f.

Prerequisite, A405. For superintendents, principals, deans, personnel directors, and advisers. A study of problems of organization and administration of a personnel program for counseling students. MR. POLMANTIER, MR. ROEBER.

G410 Seminar in Guidance and Counseling (1-3) f, w.

MR. POLMANTIER, MR. ROEBER.

G422 Clinical Procedures in Student Personnel Work (2½-3) w.

Prerequisites, courses G395 and G407, or their equivalents. A course dealing with such clinical procedures as analysis, synthesis, diagnosis, prognosis, treatment, and follow-up. MR. POLMANTIER.

G490 Research in Guidance and Counseling (credit to be arranged) f, w.**(H) Physical Education****H65 Elements of Health Education (2) w, s.**

For elementary and high school teachers. The organization of the school health program, the adaption of health materials to elementary and high school levels. MISS MCKEE.

H119 Teaching of Physical Education (2) w.

Prerequisite, A102. Required of Physical Education majors and minors. Teaching methods, selection of activities, program planning for elementary, secondary, college physical education. MISS DUNCAN.

H124 Rhythmic Activities for Elementary Schools (2) w, s.

A study of the basic philosophy of Children's Rhythms, as well as practical suggestions for its application with singing games, and selected folk dances. MISS TAYLOR.

H126 Physical Education Programs for Secondary Schools (3) s.

Theoretical and practical work with programs and activities suitable for use in the physical education program in the high school. MISS DUNCAN.

H127 Physical Education Activities for the Elementary School (2) w, s.

Objectives of physical education for the elementary school child with application of choice of curriculum and organization of program. Theory, practice in rhythms and games. MISS MCKEE.

H152 History and Principles of Physical Education (3) f.

A historical survey of the aims and content of previous physical education systems combined with an analysis of prevailing conditions which influence modern American programs. MR. EDWARDS.

H364 Problems of Physical Education for Elementary Schools (2) f, s.**H365 The High School Curriculum in Physical Education (2) r, s.**

Prerequisite H152. A critical examination of physical education activities and programs leading to the construction of general and special curricula for secondary schools. MR. BUNKER; MR. EDWARDS.

H366 Intramural Sports (2) w, s.

A consideration of the objectives and principles in the administration of intramural sports in high schools and colleges. MR. EDWARDS; MR. STANKOWSKI.

H370 Tests and Measurements in Physical Education (2½-3) w.

Measurement of aptitude and achievement in physical education activities with particular reference to the determination of standards. MR. HINDMAN.

H380 Body Mechanics (5) w, s.

Prerequisite, Anatomy. Kinesiological analysis of physical education activities with special emphasis on the prevention of postural difficulties including the technique of postural examinations and massage. MISS KELLY.

H390 Administration of Physical Education (3) w, s.

Prerequisites, teaching of physical education and sports technique courses. Problems of administrators and supervisors; finances, construction, equipment, care of physical education plant, selection of Staff. MISS MCKEE; MR. MATTHEWS.

H391 Problems of Health Education (3) w, s.

Prerequisites, a course in hygiene or preventive medicine, and H390 or equivalent. Principles and methods of health supervision, health service, and health instruction. MISS CLINE.

H400 Special Investigations in Physical Education (1-2) f, w, s.

THE STAFF.

H410 Seminar in Physical Education (1-2) f, w, s.

Reports on selected topics are presented by students and instructors, and criticized by the group. THE STAFF.

H415 Remedial Gymnastics (2) f.

Prerequisite, Body Mechanics. Advanced study of postural problems and correction of defects. MISS KELLY.

H420 Administration of Interscholar Athletics (3) w, s.

The organization and management of interscholastic and intercollegiate athletics. MR. MATTHEWS.

H440 Scientific Studies in Physical Education (3) f, s.

A survey and critical evaluation of reports of research in the field of physical education. Does not include the carrying on of research. MR. EDWARDS; MR. HINDMAN.

(J) Music Education**J127 Song Literature for Children (1) f.**

Prerequisite, Introduction to Music, or equivalent training. Surveys of song literature used in the elementary school with some attention given to the fundamentals of singing. MR. VAN BODEGRAVEN.

J129 Elementary School Music (2) w.

Prerequisite, Introduction to Music, or its equivalent. Music methods and materials for teachers in the elementary school. Two recitations and one laboratory period per week. MR. VAN BODEGRAVEN.

J130 Teaching of High School Music (3) w.

This course covers all phases of music education. MR. VAN BODEGRAVEN.

J131 Teaching Music in the Elementary School (3) f.

Intended for students majoring in Music Education. MR. VAN BODEGRAVEN.

J132 Teaching of Instrumental Music (2) f.

Intended for all majors in music education. MR. VAN BODEGRAVEN.

J380 Music Supervision (2) s.

Prerequisite, completion of J131 or equivalent training. Especially for those who supervise the work of the elementary school teacher. Problems in county supervision are discussed. MR. VAN BODEGRAVEN.

J381 Problems in School Music Teaching (2-5) w.

Prerequisite, teaching experience and permission of the instructor. The student is expected to submit problems which he wishes to work out in the course. MR. VAN BODEGRAVEN.

J400 Special Investigation in Music Education (2-5) f.

Prerequisite, completion of major in music education. Covers all phases of music education and is arranged to fit the needs of each individual student. MR. VAN BODEGRAVEN.

J417 Curriculum Materials in Music Education (2-5) s.

Prerequisites, J130, J131, graduate standing. Rote songs, choruses, cantatas, operettas, orchestra, band music, ensembles, class instructional materials, phonograph and appreciation materials suitable for various grade levels. MR. VAN BODEGRAVEN.

J418 Problems in Instrumental Music (3) s.

Prerequisite, graduate standing and experience in teaching instrumental music. Problems in organization and class teaching with demonstrations by the instructor and members of the class. MR. VAN BODEGRAVEN.

J419 Problems in High School Vocal Music (3) s.

Designed for graduate students with teaching experience. Deals with fundamentals of voice development, materials and problems met in the vocal ensembles of the high school.

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