College of Education

William H. Coffield, Dean
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Teacher education is historically a major function of The University of Tennessee. Beginning in 1903, when the first courses for teachers were offered, the University has increasingly fulfilled its responsibility to provide schools with competent teachers and service personnel and to improve the teaching profession by continually upgrading its membership. The College of Education was established in 1926, and all teacher preparation programs at The University of Tennessee are now coordinated within its seven departments and its School of Health, Physical Education, and Recreation.

The College of Education holds membership in the American Association of Colleges for Teacher Education. All certification and degree programs through the doctoral level are fully accredited by the National Council for Accreditation of Teacher Education, the Southern Association of Colleges and Schools, and the Tennessee State Department of Education.

The faculty of the College of Education is committed to performing three major functions: (1) to provide professional preparation for teachers, administrators, and school service personnel at undergraduate and graduate levels; (2) to collaborate with school personnel, educational agencies, professional groups, and others interested in the evaluation and improvement of educational opportunities programs, and services; and (3) to promote and conduct experimental and research studies in education.

The teacher preparation programs represent utilization of University-wide resources and cooperation of all appropriate units. Certain requirements are of basic importance: a broad cultural background in the arts and sciences (general education), mastery of professional knowledge and skills, and thorough preparation in specific teaching fields. Through a carefully planned program of combined academic and direct experiences, the prospective teacher acquires a depth and breadth of knowledge and understanding superior to that of the typical college graduate—superior in cultural and citizenship appreciation as well as in professional and scholarly accomplishment.

The Claxton Education Building contains many modern and functional facilities for the professional training of teachers. Classrooms, laboratories, seminar rooms, faculty and administrative offices, the instructional materials center, the Bureau of Educational Research and Service, the School Planning Laboratory, and facilities for special activities such as observation and experimentation are located in this air-conditioned building.

Special Services

Bureau of Educational Research and Service. Four major types of activities—research, development, educational services, and publications—are channeled through the Bureau of Educational Research and Service (BERS), located in Claxton Education Building. The research activities relate to the development of research proposals, conducting research, and assisting others in development of research proposals in the College of Education. Developmental activities relate to change efforts in curricular content and instructional methodology. Educational services include a wide list of activities such as in-service educational programs, consultant services, educational services and administrative training programs. Official publications of the College of Education are developed through the Bureau. A limited number of graduate student assistanships are available. The Educational Opportunities Planning Center, the Research Coordinating Unit, and the School Planning Laboratory are integral parts of the Bureau of Educational Research and Service.

EDUCATIONAL OPPORTUNITIES PLANNING CENTER

The Educational Opportunities Planning Center (EOPC) works with school districts in the Tennessee-Kentucky area to help meet their desegregation-related needs by assisting with needs assessment and by helping develop plans to meet the needs. A new component was added during the 1975-76 year to deal with sex discrimination in the school systems of Tennessee and Kentucky. Staff follow through with in-service training of local district personnel, with such training directed toward solutions of curricular, human relations, and other types of problems created or compounded by school desegregation and sex discrimination. On-site evaluation of locally installed practices and continuing cooperative evaluation of the progress of local programs are additional major efforts. This program is funded by the U.S. Office of Education.

RESEARCH COORDINATING UNIT

The Research Coordinating Unit (RCU) located on campus at Alumni Hall, is available for use by students, faculty, administrators, and all vocational educators in the state of Tennessee.

The primary objectives of the RCU are to collect and disseminate information, coordinate research, stimulate research, and conduct research in selected areas. The RCU has a library with the complete series of ERIC Documents stored on microfiche. Microfiche reader-printers are available in the library and portable readers may be checked out.
the speech and hearing tests. Leave the application form (scan sheet) with the test administrator.

The College of Education will be informed of the speech and hearing test results. Those applicants having satisfactory speech and hearing test results, a grade point average of 2.20 or above at the termination of the previous quarter (if admitted to the University prior to fall, 1966, a 2.00 GPA is sufficient), and their academic advisor's consent will be informed of their acceptance by a letter from the Associate Dean for Undergraduate Programs sometime during the quarter. Students not qualifying for acceptance will also be informed of their status by letter. The academic advisor's consent and confirmation of the grade point average is obtained by the Dean's office and does not entail action by the student. If a student takes the speech and hearing test and does not have the required grade point average at the time, but subsequently raises it, it will be necessary to return to the Associate Dean's office and reapply for admission to the Teacher Education Program. You will not be admitted automatically upon raising your grade point average to the required level.

The following criteria must be met by all students applying for admission to teacher education:

Scholastic Achievement—a cumulative grade point average of 2.2 (a 2.0 GPA if admitted to the University prior to fall quarter, 1966).

Physical Fitness—satisfactory ratings in general health, speech, hearing, and sight.

Personal-Social-Ethical Fitness for Teaching—satisfactory ratings from faculty advisers.

Admission to Student Teaching
Application for student teaching must be filed no later than January 1 of the academic year preceding the actual experience. For example, if a student plans to student teach during the 1978-79 academic year he must make application by January 1, 1978.

Application forms may be obtained in the Office of the Director of Student Teaching, 212 Claxton Education Building.

Students majoring in special education—speech and hearing and in special education—hearing impaired are required to make application for clinical practice or student teaching in the Department of Special Education and Rehabilitation and in the Office of the Director of Student Teaching.

Before admission to the student teaching quarter, the student must have fulfilled the following requirements:

1. Full admission to the Teacher Education Program no later than the quarter preceding student teaching in all conditions relative to admission satisfied.

2. Completion of the professional core courses (Education 3010, 3020, 3030 and Educational Psychology 2430 or 3810).

3. Completion of at least 50 percent of course work in the endorsement area(s).

4. Completion of the special methods courses at The University of Tennessee.

5. Completion of the Student Teaching Seminar and the September experience (non-credit).

6. Senior standing and a minimum grade point average of 2.0 on work completed at The University of Tennessee.

The fifteen-hour student teaching experience is evaluated on a satisfactory-no credit basis and the hours are included in the University policy requiring a 2.0 in the last 45 hours work.

The most important criterion in placing student teachers in the public schools is the value of the experience for preparing for teaching. The University cannot guarantee the geographic locale desired by the student though effort will be made to follow the student's wishes. The University maintains student teaching centers in East Tennessee communities some of which are considerable distance from Knoxville. Married students will be placed as near their homes as possible in order to preserve family life.

Substitutions
It is sometimes necessary and advisable for students to substitute other courses for those required in a particular curriculum. This is particularly true of students who transfer to the University of Tennessee, College of Education from another college or university. The general test of whether a substitution would be appropriate is "does the course you wish to substitute meet the spirit of the course requirement?" That is, "is the content similar or perhaps more appropriate to your needs?"

To initiate a substitution request the student should visit with his adviser first. If they agree that the substitution is an appropriate one, the substitution request form should be forwarded to the office of the Associate Dean for Undergraduate Programs, Claxton Education Building 212. Approved petitions are forwarded to the Dean of Admissions for further approval, and for filing with the Undergraduate Council.

Recommendation for Certification
The application for a professional teacher's certificate should be completed early in the final quarter before graduation. Application forms may be obtained in the Registrar's Office, 215 Student Services Building and 212 Claxton Education Building. Tennessee State regulations stipulate that the applicant for a professional certificate must be recommended by the teacher-training institution. The Dean of the College of Education is the official designated to recommend University of Tennessee graduates for teacher certification. To receive this recommendation, the applicant must have fulfilled the following requirements:

1. A minimum cumulative grade point average of 2.0.

2. Satisfactory performance of the student teaching experience.

3. A minimum grade point average of 2.0 in the teaching field(s).

4. Completion of a methods course in each area of endorsement.

5. Fulfillment of all special recommendations of the Committee on Standards and Admissions.
Graduate Programs

The College of Education, through the Graduate School, offers programs leading to the Master of Science degree, the Master of Education degree, the Master of Arts in College Teaching degree, the Master of Public Health degree, the Specialist in Education (advanced graduate) degree, the Doctor of Education, and the Doctor of Philosophy degrees. For further information, see the Graduate School Catalog.

Undergraduate Curricula

The College offers courses of study leading to the Bachelor of Science in Education and to eligibility for teacher certification in Tennessee and in those states which grant reciprocity privileges to graduates of institutions accredited by the National Council for Accreditation of Teacher Education (NCATE).

A core of studies provides the foundation for specialization in all teacher education curricula. In addition, approved concentrations must be completed in subject fields specifically related to the public school curriculum. A choice is to be made among programs leading to recommendation for certification at one of three levels: elementary (kindergarten-9), secondary (grades 7-12), or special subjects in grades 1-12.

Courses in library science are available to students who are interested in beginning positions in any library or in preparation for further graduate study in professional librarianship. The minimum requirements for full-time librarianship in any size school in Tennessee can be met through completion of the basic library service courses (3510, 3520, 3530, 4140, 4150, 4270, 4330, 4750).

Endorsement as a librarian requires 27 quarter hours in library science. At the undergraduate level, only a minor in library science is available. Students in the College will select an appropriate curriculum from those outlined under the undergraduate curriculum section. Students interested in this program should consult with a member of the faculty of the Graduate School of Library and Information Science.

Students should work closely with faculty advisers in planning programs of study. The chosen curriculum must be followed as outlined to assure graduation and certification, and any proposed substitution for a required course should be filed for approval before the end of the junior year.

NOTE: Students are advised to consult the University's degree requirements as stated in the front section of this catalog as well as the requirements for the college or department.

I. Curricula for Elementary Teachers

A. Kindergarten through Grade 9

GENERAL EDUCATION.................................................89 hours

Communications (12 hours)
English 1510-20 (4); Speech 2011 (4) or 2311 (4) or any Speech elective

Health and Physical Education (18 hours)
P.E. 3450 (3); School Health 3610 (3); Psychology 2500 (4); P.E. and Health electives (6 hours) must include minimum of 3 hours in each area.

Humanities (12 hours)
Literature 6 hours; the remaining four hours must be chosen from foreign language (above introductory level), philosophy, religious studies, Art 1815 or 1825, or Music 1210 or 1220.

Mathematics (9 hours)
Mathematics 2110, 2120, 2130.

Natural Science (20 hours)
9 or 12 hours in biological science. Recommended series are Biology 1210, 1220 (1230 or Botany 1110, 1120), 8 or 12 hours in physical science. Recommended series are Physics 1410, 1420 (1430) or Geology 1510-20 or Astronomy 2110, 2120, 2130 or Chemistry 1110, 1120, (1130).

Social Studies (18-20 hours)
History 4 hours—it is recommended that the history course be taken at the sophomore level. Electives (14-16 hours) from anthropology, economics, geography, political science, and sociology. Minimum of 3 areas required.

CORE PROFESSIONAL COURSES................................9 hours
Educ. C & I (3010, 3020, 3030).

ELEMENTARY EDUCATION COURSES:...36 hours
Elementary Experience): 3511, 3512, 3513, (3 hours); Educ. C & I (Student Teaching): 4810, 4820, (15 hours).

SPECIALIZED COURSES.................................18 hours
Educational Psychology 2430 (3 hours); Art Education 2100, 2110 (6 hours); Music Education 2100, 3110 (8 hours); Educ. C & I 3510 (3 hours).

AREAS OF CONCENTRATION: 15-16 hours
One or more areas of specialization must be included. See Black Studies for specific course possibilities.

Child Study Requirement plus 15-16 hours from Child Development, Psychology, Educational Psychology.

Early Childhood Education (Kindergarten-Grade 3) To include Educ. C & I 4303, 4450, 4451; Health Elective (3); CFS 3120, 3210; Student teaching in kindergarten and grade 1-3.

Foreign Language 16 hours.


Humanities Requirements plus 16 hours
Music Requirements plus 16 hours
Social Science Requirements plus 15-16 hours
Special Education 15 hours. (If certificate is desired in Special Education areas of Crippling and Special Health and/or Partially Seeing additional hours are required, including one additional quarter of study teaching).

a) Crippling and Special Health Conditions (18 hours) Special Education and Rehabilitation 4150, 3333, 4850, 4925; Child Development 4610 or Human Services 2690; and 3 hours from Special Education 3520, 4130, 4160 or 4250.

b) Partially Seeing (8 hours) Special Education and rehabilitation 4110, 3333, 4850, 4923; 6 hours from Special Education 3520, 4110, 4120, 4150, 4150, 4150, 4840, Office Administration 2110 (for those lacking high school credits in typewriting).

ELECTIVES..............................TOTAL MINIMUM REQUIRED.....................................191 hours

*Requires admission to Teaching Education Program.

B. Nursery School through Grade 3

GENERAL EDUCATION.................................................83 hours

Communications (12 hours)
English 1510-20; Speech 2011 or 2311.

Humanities (12 hours)
Literature (4); Music 1210 or 1220 or Art 1815 or 1825; philosophy or religious studies (4).

Natural Sciences (16 hours)
Biological science (in series or combination) (8); Physical science (in series or combination) (8).

Mathematics (9 hours)
Mathematics 2110-20-30.

Social Sciences (18 hours)
History (4); Child and Family Studies 4610; Economics 2110; Anthropology 2530 or 3410 or Human Services or Sociology 4320 or 4510; Elective (from anthropology, economics, geography, human services, political science, sociology).

Interdisciplinary Studies in Home Economics (16 hours)
H.E. 1510, 1520, 2510, 3510.

SPECIALIZED COURSES.................................31 hours
P.E. 3450, 3660; Pub. Health 3210; Health Elective 4100, 2111; Music Ed. 2100, 3110; Educ. C & I 4333, CFS 3120.

FOUNDTIONS COURSES..............................15 hours
CFS 1500, 3210; Select One; CFS 3220, 4230 or 4350; Select two: Educ. C & I 3010, 3020, 3030.
II. Joint Elementary-Secondary Education Certification

(Mathematics + B.S. Degree)

GENERAL EDUCATION

90 hours

English 1510-20 and Speech 2021 or 2311.

Humanities

12 hours

Eight hours literature and four hours electives.

Health and Physical Education

19 hours

Psychology 2500, Educ. Psychology 2430, Physical Education 3450; Physical education electives (3 hours); School Health 3610. Select one of the following as a prerequisite to School Health 3610: Public Health 1110, School Health 3000, 3210, 3410, 3510, 3511.

Natural Sciences

20 hours

Recommended series or combinations:
A. Biological Science (8-12 hours)
  Biology 1210-20-30 or Botany 1110-20
B. Physical Science (8-12 hours)
  Physics 1410-20-30 or Geology 1510-20 or Astronomy 2110-20 or Chemistry 1120-20-30

Mathematics

9 hours

Math 2110-20-30, taken in sequence.

Social Sciences

18 hours

Four hours in history; 14 hours electives from a minimum of three areas of social science other than history.

CORE PROFESSIONAL EDUCATION

50 hours

A. Educational Curriculum & Instruction (9 hours)*
  Educ. C&I 3010*, 3020, 3030*
B. Educ. C&I Methods (26 hours)*
C. Educ. C&I Student Teaching (15 hours)*
  Educ. C&I 4810, 4720.

SPECIALIZED COURSES

12 hours


AREA OF CONCENTRATION

36 hours

1. Any 4 hours from English 2510-20-30-40-60-70-80-90, plus 12 hours electives from anthropology, art, English literature, Library and Information Science 3510-20-30, foreign language (beyond introductory level), history (upper-division), music, philosophy, or religious studies. (NOTE: At least three fields must be represented.)

   Mathematics (4 hours)*

   Natural Science (12 hours)*
   A biological science, a physical science, or a combination of the two.
   Psychology (4 hours)*
   Psychology 2500.
   Social Studies (12 hours)*
   Two fields must be represented from anthropology, economics, geography, history, human services, political science, and sociology.

   CORE PROFESSIONAL EDUCATION

   9 hours
   Educ. C & I 3010*, 3020, 3030*
   SPECIALIZED PROFESSIONAL EDUCATION

   33 hours
   Educational Psychology 3810; 6 hours of appropriate methods courses, Educ. C & I 3521-22-23*, 4710-20*, and 6 hours of electives selected from the College of Education. NOTE: An appropriate special methods course must be taken in each subject and/or area in which endorsement is sought:

   English
     Educ. C & I 3657 and 3658
   Foreign Language
     Educ. C & I 3652 and 3653
   Mathematics
     Educ. C & I 3751 and 3752
   Science
     Educ. C & I 3654 and 4654
   Social Studies* and additional methods course

   TEACHING SUBJECT AREAS AND ELECTIVES

   72 hours
   See outline of the programs below.

   TOTAL MINIMUM REQUIRED

   183 hours

   PROGRAM AVAILABLE

   Program majors leading to graduation and certification for high school teaching range from the broad fields, comprehensive major to the subject major and minor combination programs.

   *Requires admission to Teacher Education Program.

III. Curriculum for Secondary Education (7-12)

GENERAL EDUCATION

69 hours

Communications (12 hours)

English 2311.

Health and Physical Education (9 hours)

Including at least 3 hours of school health or public health, nutrition (P.E. must be represented.)

Humanities (16 hours)

Any 4 hours from English 2510-20-30-40-60-70-80-90, plus 12 hours electives from anthropology, art, English literature, Library and Information Science 3510-20-30, foreign language (beyond introductory level), history (upper-division), music, philosophy, or religious studies. (NOTE: At least three fields must be represented.)

Mathematics (4 hours)*

Natural Science (12 hours)*
   A biological science, a physical science, or a combination of the two.

Psychology (4 hours)*
   Psychology 2500.

Social Studies (12 hours)*
   Two fields must be represented from anthropology, economics, geography, history, human services, political science, and sociology.

   CORE PROFESSIONAL EDUCATION

   9 hours
   Educ. C & I 3010*, 3020, 3030*
   SPECIALIZED PROFESSIONAL EDUCATION

   33 hours
   Educational Psychology 3810; 6 hours of appropriate methods courses, Educ. C & I 3521-22-23*, 4710-20*, and 6 hours of electives selected from the College of Education. NOTE: An appropriate special methods course must be taken in each subject and/or area in which endorsement is sought:

   English
     Educ. C & I 3657 and 3658
   Foreign Language
     Educ. C & I 3652 and 3653
   Mathematics
     Educ. C & I 3751 and 3752
   Science
     Educ. C & I 3654 and 4654
   Social Studies* and additional methods course

   TEACHING SUBJECT AREAS AND ELECTIVES

   72 hours
   See outline of the programs below.

   TOTAL MINIMUM REQUIRED

   183 hours

   PROGRAM AVAILABLE

   Program majors leading to graduation and certification for high school teaching range from the broad fields, comprehensive major to the subject major and minor combination programs.

   *Requires admission to Teacher Education Program.
D. Psychology Education
1. A concentration and endorsement in Psychology shall require a minimum of 30 quarter-hours; 12 hours upper division classified as follows:
   a. Core .......................... 16 hours
   Psychology 2520 .......................... 4
   Psychology 2530 .......................... 4
   Psychology 3510 .......................... 4
   Psychology 3510 .......................... 4
   Electives .......................... 14 hours selected from:
   Psychology 2250, 2530, 3510, 3520, 3530, 3540, 3550, 3560, 4230, 4510, 4520, 4610, 4900; or Psychology or Ed. Psych. 4640; or Ed. Psych. 3110, 4110, 4130, 4800, 4880, 4890.
   b. Two minors (18-27 hours for a total of 45 quarter-hours) with a minimum of 6 hours upper division.
   At least one of the two minors must meet Tennessee minimum endorsement requirements for the subject area.

E. Science Education
1. Area Majors in Science (72 hours minimum)
   a. Biological Science (72 hours minimum)
      1. Biology 1210-20-30 or Botany 1110-20-40 (12 hours)
      2. Microbiology 20-20-30 (12 hours)
      3. Chemistry (excluding 1410 series) (12 hours)
      4. Sociology (excluding 1410 series) (32 minimum, approved electives may be selected from one or more of the following: biological sciences: biochemistry, botany, microbiology, zoology, physical science: chemistry. Minimum requirement in biological science consists of 56 hours (12 hours chemistry required, excluding 1410 series).
      Endorsements: Biology (Life Science) and General Physical Science
   b. Earth and Environmental Sciences (72 hours minimum)
      1. Includes 12 hours biological science required, and 14 hours science electives selected from astronomy, chemistry (excluding 1410 series), geography, geology, and physics. Geology (16 hours).
      Chemistry (8 hours).
      Physics (excluding 1410 series) (4 hours)
      Geography (Physical) (4 hours)
      Geology (Meteorology or Climatology) (4 hours)
      Geology, Conservation, Oceanography, or Soil Science (6 hours).
      Endorsements: Earth Science, General Science, and General Physical Science
   c. Natural Science (72 hours minimum)
      1. Basic requirement of 12 hours in each of four of the following subjects:
      2. Biology 1210-20-30 or Botany 1110-20-40.
      4. Geology (excluding 1410 series).
      6. Physics (excluding 1410 series).
      7. Endorsements: Minor Subject

F. Social Studies Education
Program
Broadfield Social Science (Major 72 hours)
Certification includes economics, geography, history, political science and sociology.
   a. 28 quarter hours in history, including 1510-20 and 2520-20, and 12 hours in world and/or American history.
   b. 8 quarter hours in each of the following: geography, political science, and sociology.
   c. 4 quarter hours in anthropology.
   d. 9 quarter hours in economics, including 2110-20 and an elective.
   e. 7-8 additional quarter hours in the above-listed or related fields.
   Program II
   Specific subject major (45 hours plus 27 hours for a minor).
   Minors. A minor is defined as 27 quarter hours in a single subject area, i.e., biology, history, French, psychology, speech, etc. A minor does not meet certification requirements in all cases.

IV. Art and Music Education
A. Art Education
GENERAL EDUCATION .................. 67-69 hours
   Communications (11-12 hours)
   English 1510-20 (4, 4) and 3-4 hours in speech.
   Health and Physical Education (9 hours)
   Activities courses in physical education plus School Health 3510.
   Humanities (15-16 hours)
   Art History 1815 and 1825, one literature course, one elective from art, anthropology, literature, philosophy, foreign language above 1000 level, upper division history, library service, religion or music.
   Mathematics (4 hours).
   Natural Science (12 hours)
   Any twelve hours from the biological and/or physical sciences.
   Psychology (4 hours)
   Endorsements: Social Studies (12 hours)
   Any twelve hours from at least two areas.
   CORE PROFESSIONAL EDUCATION .................. 9 hours
   Ed. C & I 3010*, 3020, 3030*
   SPECIALIZED PROFESSIONAL EDUCATION .................. 21 hours
   Student teaching: Ed. C & I 4710*, 4720*; Ed. Psych. 2430 or 3810; and an elective in the College of Education.
   TEACHING AREAS AND ELECTIVES .................. 84 hours
   A. Major (60 hours)
   Art Education 2120, 2120, 3030, 3210, 4120, 4130, 4150, 4160.
   Art History 1115, 1125, 1135. Plus twelve quarter hours in a single area and twelve additional hours distributed over three other studio areas.
   B. Minor (24 hours)
   May be taken in any area offering a minor.
   TOTAL MINIMUM REQUIRED .................. 181 hours

*Requires admission to Teacher Education Program.

B. Music Education
GENERAL EDUCATION .................. 65-67 hours
   Communications (11-12 hours)
   English 1510-20 and 3-4 hours in speech.
   Health and Physical Education (9 hours)
   Activities courses in physical education plus School Health 3510.
   Humanities (14 hours)
   Music 2320-30, literature course, and one elective from art, anthropology, literature, foreign language beyond introductory level, upper division history, library service, or philosophy.
   Mathematics (4 hours).
   Natural Science (11-12 hours)
   Three courses from the biological and/or physical sciences, to include Physics 1810.
   Psychology (4 hours)
   Endorsements: Social Studies (12 hours)
   Any 12 hours to include at least two areas.
   CORE PROFESSIONAL EDUCATION .................. 9 hours
   Ed. C & I 3010*, 3020, 3030*

SPECIALIZED PROFESSIONAL EDUCATION .................. 21 hours
   Student teaching: 4710*, 4720*; Educ. Psych. 2430 or 3810, and a senior elective in the College of Education.

TEACHING AREAS AND ELECTIVES .................. 86-108 hours
   Concentration in Vocal Music (Voice Principal)
   a. 25 quarter hours in Music Education. 1010-20; 2110; 2411; 2421; 2431; 2433; 3130; 3150; 4420; 4422.
   b. 49 quarter hours in Music. 1111-21-33; 2111-21-33; 2113-23-33; 2340; voice 22 hours; plus piano proficiency and required ensembles.
   Concentration in Instrumental Music (Vocal Principal)
   a. 25 quarter hours in Music Education. 1010-20; 2110; 2411; 2421; 2433; 3141-2; 3150; 4420; 4422-42-43; 4450.
   b. 49 quarter hours in Music. 1111-21-33; 1113-23-33; 2111-21-33; 2113-23-33; 2340; voice 22 hours; plus piano proficiency; required ensemble participation.
   Concentration in Elementary Music Education
   a. 31 quarter hours in Music Education. 1010-20; 2110; 2411; 2421; 2431; 3141-2; 3150; 4420; 4422-42-43; 4450.
   b. 55 quarter hours in Music. 1111-21-33; 1113-23-33; 2111-21-33; 2113-23-33; 2340; piano or organ 22 hours; voice 6 hours; plus required ensembles.
   Concentration in Instrumental Music
   a. 35 quarter hours in Music Education. 1010-20; 2411-12-13; 2421-22-23; 2431-32-33; 3130; 3150; 4420.
   b. 61 quarter hours in Music. 1111-21-33; 1113-23-33; 2111-21-33; 2113-23-33; 2340; 3122 or 4124; principal instrument 22 quarter hours; secondary instrument 6 quarter hours; piano proficiency; participation in required ensembles.
   c. Music Education 4460 is required for all students whose principal instrument is wind or percussion.

TOTAL MINIMUM REQUIRED .................. 181-208 hours

GENERAL REGULATIONS FOR ALL MUSIC EDUCATION STUDENTS
   Required participation, with credit or as a registered auditor, in a major instrumental or vocal organization each quarter in residence (on-campus) as a music education major, as approved by the student's adviser and the directors of the organizations concerned. Students preparing to be band directors are expected to enroll in Marching Band unless officially excused.
   Instrumental Major: Concert Band; University Marching Band; or University Orchestra.
   Vocal Major: Concert Choir; University Glee Clubs.
   Elementary Music Education Major: Same as vocal major.
   B. Transfer students must take proficiency examinations in applied music, music theory, sight singing and dictation prior to registration in Music Education curricula.

*Requires admission to Teacher Education Program.

V. Health, Physical Education, Recreation, and Safety
A. Concentration in Elementary Physical Education (1-9)
   GENERAL EDUCATION .................. 88 hours
   Communications (12 hours)
   English 1510-20 and Speech 2021 or 2311.
D. Minor in Secondary Physical Education (27 hours)  
(Open only to students with a concentration in Elementary Physical Education.)
- P.E. 2010; 2120; 2210; 2300; 3010; 3170; 3220; 3221; 4010; 4060; 4330 or 4340-4500.

E. Minor in Dance (27 hours)  
- P.E. 2040-50; 3010; 3020 or 3030; 3050; 3060; 3070; 3090; 3151; 4010; 4060; 4330 or 4340-4500.

F. Concentration in Recreation  
GENERAL EDUCATION 
- 97 hours  
Natural Sciences (16 hours minimum)  
4 hours selected from: chemistry, physics, geology, or geography 3530.  
4 hours selected from: biology or botany, zoology, the areas of anatomy or physiology.  
Mathematics (3-4 hours)  
Selected from: Mathematics 1540-50-60, 1840-50-60.  
2012.  
Statistics 2100.  
Social Sciences (16 hours minimum)  
Sociology 1510 and 4530.  
At least 9 additional hours selected from Sociology 1520, 3130, 3410, 4510, 4530, 4600, 4605, or Rural Sociology 3420 or Human Services 2860, 4900, 3300 or Political Science 2530, 2020, 2015-20, 3656-69, 3921-50.  
Behavioral Sciences (16 hours minimum)  
Psychology 2500.  
At least 12 additional hours selected from: Psychology 2520, 3210, 3350, 3650, 4550, 4610 or Educational Psychology and Guidance 2430, 3520, 3530, 4310, 4800, or CFS 2110, 3210, 3220, 4620, 4810.  
Communications (15 hours minimum)  
English 1510-20, Speech 2311.  
At least 3 additional hours selected from Speech 2351, 3021, Communications 1110; Journalism 2210, 3710; Educ. C & I 4750.  
Health and Safety (3 hours minimum)  
School Health 3210 or Safety 3520.  
Humanities (16 hours minimum)  
At least 4 hours selected from English 2000-level and above.  
At least 3 hours selected from history.  
At least 9 additional hours selected from English 2000-level and above.  
History 2520-20, 2530, 2560, Anthropology 2530, Geography 3660, Classics 2810, 2810-20, 3210-30, 3330, 4010, Philosophy 1510-20, 2530, 3135, 3830, 3910, 2550, Religious Studies 2610, 2611, 2620.

Cultural Arts (12 hours minimum)  
4 courses from at least 2 of the following arts:  
Music 1210-20, 4241-51, 4260, 4270  
Theatre 1510, 3252-53-54, 3262-63  
Art 2715, 1815-25  
P.E. 3090, 2070 (Dance).

PROFESSIONAL RECREATION EDUCATION  
- 33 hours  
Recreation 1100, 3140, 3140, 3200, 4130, 4320, 4820, 4890.

FIELD STUDY  
- 33 hours  
Recreation 1000, 2000, 3000; 4000.

SKILLS AREAS  
- 24 hours  
Student selects two of the following skill areas and completes at least 3 courses (9-12 hours) in each

Art: Art 1115-25-35, 2115, 2215, 2315, 2515, 2516, Art Education 2100, 2110, 2120.  
Dance: Physical Education 4310, 3010-20-30, 3040, 3100, 4320.  
Drama: Theatre 1510, 1520-30, 2111, 2121-21, 3172-82.  
Music: Music Education 4410, 2100, 1010-20-30, Music 1500 through 1596 series, membership in chorals or instrumental group.  
Outdoor Recreation and Camping: Physical Education 3710, Forestry 4440, Educ. C & I 4380,  
Recreation 3301, 3302.

Sports: Physical Education—2 team sports, 3 individual sports.  
Free Electives (15 hours) to be added to above requirements to total minimum of 192 hours for the degree.

TOTAL MINIMUM REQUIRED 
- 192 hours

G. Concentration in Public Health  
GENERAL EDUCATION 
- 86 hours  
Communications (12 hours)  
English 1510-20 and Speech 2311.  
Health and Physical Education (11 hours)  
Public Health 3300  
Public Health 3210  
Physical education electives.  
Humanities (16 hours)  
English—any 4 hours from literature  
Anthropology 3220  
Philosophy or religious studies elective (4)  
Art or music elective (4).  
Mathematics (4 hours).  
Natural Science (20 hours)  
Chemistry or physics sequence (4, 4, 4)  
Biological 2120 or Zoology 2620-30.  
Psychology (4 hours)  
Psychology 2550.  
Social Studies (15 hours)  
Economics 2110  
Geography 2110 or 2120 or Political Science 2510 or 2520  
History 1510-20 or 2510-20  
Sociology 1510.  
CORE PROFESSIONAL EDUCATION 
- 9 hours  

SPECIALIZED PROFESSIONAL EDUCATION  
- 24 hours  
Education C & I 4750  
Education C & I 4720.  
Public Health 4700, 4710, 4720  
School Health 3650 (3)  
Educational Psychology 3810 (3).

TEACHING AREAS AND ELECTIVES 
- 71 hours  
Public Health Required Courses (12): 3310, 3330, 3340; 3410; 3420; 3440; 3450.  
Public Health Electives (6)  
School Health Required Courses (9); 3410, 3420, 3440; 3450.  
Safety Required Courses (3); 3520 (3)  
Biology 1230  
Microbiology 2105  
Psychology 3150  
Sociology 1520  
Sociology 3130  
Nutrition 1230  
Sociology Electives (19 hours)  
Special Note: If some of the specific courses cited above are dropped or changed, they may be substituted with an equivalent course.

TOTAL MINIMUM REQUIRED 
- 190 hours

*Requires admission to Teacher Education Program.
I. Minor in Driver and Traffic Safety Education (28 hours)

RECOMMENDED COURSES ..................................................17 hours
At least nine hours selected from:
Public Health 4120; Educ. C & I 4750; Educ. Psychology and Guidance 2520; School Health 3650.

J. Minor in School Health Education (30 hours)
School Health 3000, 3210, 3410, 3650, 3420; Safety 3520; Public Health 3310, 3320, 4410; Nutrition 1230 or Public Health 4420 or School Health 3620.

VI. Special Education*

GENERAL EDUCATION .....................................................82-85 hours

Communications (11-12 hours)
English 1510-20 and 3-4 hours in speech.

Health and Physical Education (9 hours)
Activities courses in physical education plus School Health 3510.

Humanities (15-16 hours)
Any three hours from literature, plus 11-12 hours of electives from anthropology, art, literature, Library and Information Science 3510-20, foreign language beyond introductory level, upper division history, music, philosophy, or religious studies. (NOTE: At least three fields must be represented.)

Mathematics (4 hours).

Natural sciences (20 hours)
Any combination from the biological and physical sciences with 12 hours from one area (biological or physical) and 8 hours from the other.

Psychology (4 hours)..........................Psy. 1050

Social Studies (19-20 hours)
History 1510-20 or 2510-20 plus a minimum of 11-12 hours from three of the following: anthropology, economics, geography, political science, sociology.

CORE PROFESSIONAL EDUCATION ........ 9 hours
Ed. C & I 3010*, 3020, 3030*.

SPECIALIZED PROFESSIONAL EDUCATION ..........................24 hours
Appropriate methods courses (a) and student teaching:
Ed. C & I 4710*, 4720*; Ed. Psych. 2430 or 3810; and a senior elective in the College of Education.

TEACHING AREAS AND ELECTIVES ....................................71 hours
School Health Required Courses (9): 3410, 3420, 3620.
School Health Electives (3): 4710 or 4810-20, 30.
Public Health Required Courses (9): 3310, 3320, 3330.
Public Health Electives (6)
Safety: 3520
Biology 1230
Microbiology 210
Psychology 3150
Sociology 1520
Speech 1230
Elective (18)

TOTAL MINIMUM REQUIRED ..................190 hours

*A Requires admission to Teacher Education Program.

D. Concentration in Emotionally Disturbed (Secondary)

GENERAL EDUCATION .....................................................91 hours
Communications (12 hours)........................................English 1510 and English 1520, Speech 1211 or 1221, and 2311.

Health and Physical Education (14 hours)
School Health 3610; Physical Ed. 3450; P.E. and health electives (must include a minimum of 3 hours in each Health and Physical Education category).

Humanities (12 hours)
Literature (8 hours); Elective chosen from history, religious studies, foreign language above freshman level, or course from Art 1815 series, or from Music 1210 series.

Mathematics (9 hours)
Mathematics 2110-20-30.

Natural Science (20 hours)
8-12 hours biological science: Botany 1110-20, 40 or Biology 1210-20-30, 8-12 hours physical science: Physics 1410-20-30 or Geology 1510-20-30 (or Astronomy 2110-20-30) or Chemistry 1110-20-30.

Social Studies (20 hours)
History (4 hours) chosen from 1510-20, 1610, 1950, 2510-20 (or appropriate alternative); Electives (15-16 hours) from three of the following: anthropology, economics, geography, political science, human services, or sociology.

Psychology (4 hours)
Psychology 2500.

CORE PROFESSIONAL COURSES ..........................9 hours
Ed. C & I 3010*, 3020, 3030*.

SPECIALIZED PROFESSIONAL EDUCATION ..................105 hours
Psych. 2430 and 4640 (6 hrs).

a. Special Education and Rehabilitation 3333, 4130, 4610, 4620, 4630, 4640, Special Education and Rehabilitation electives 9 quarter hours.
b. Education Reading elective, Diagnostic Measurement, Educational Psychology 3810 and Educational Psychology 4240 or Psychology 3550.
c. 12 hours from the following: Psychology 2530, 2540, 2310, 2220, 4650 or Educational Psychology 4130 or Psychology 3650 or Educational Psychology 4760, 4860, 3730.
d. Requirements for a minor in a subject area must be met (minimum of 24 hours).
e. Education (C & I) 4720* and Special Education and Rehabilitation 4924 and one methods course in minor field.

TOTAL MINIMUM REQUIRED: Total hours required for endorsement in the various special education programs appear on curriculum sheets available from the faculty adviser.

RECOMMENDED ELECTIVES.

E. Concentration in Emotionally Disturbed (Elementary)

GENERAL EDUCATION .....................................................91 hours
Communications (12 hours)

English 1510 and 1520, Speech 1211 or 1221, and 2311.

Health and Physical Education (14 hours)
School Health 3610; Physical Ed. 3450; P.E. and health electives (must include a minimum of 3 hours in each Health and Physical Education category).

Humanities (12 hours)
Literature (8 hours); Elective chosen from history, religious studies, foreign language above freshman level, or course from Art 1815 series, or from Music 1210 series.

Mathematics (9 hours)
Mathematics 2110-20-30.

Natural Science (20 hours)
8-12 hours biological science: Botany 1110-20, 40 or Biology 1210-20-30, 8-12 hours physical science: Physics 1410-20-30 or Geology 1510-20-30 (or Astronomy 2110-20-30) or Chemistry 1110-20-30.

Social Studies (20 hours)
History (4 hours) chosen from 1510-20, 1610, 1950, 2510-20 (or appropriate alternative); Electives (15-16 hours) from three of the following: anthropology, economics, geography, political science, human services, or sociology.

Psychology (4 hours)
Psychology 2500.

CORE PROFESSIONAL COURSES ..........................9 hours
Ed. C & I 3010*, 3020, 3030*.

SPECIALIZED PROFESSIONAL EDUCATION ..................105 hours
Psych. 2430 and 4640 (6 hrs).

c. Special Ed. and Rehab. 3333, 4610, 4620, 4630, 4640 (18 hrs).
e. Student Teaching (30 hours)

TOTAL HOURS FOR GRADUATION .....................................205 hours

*Requires admission to Teacher Education Program.

RECOMMENDED ELECTIVES.
### F. Concentration in the Hearing Impaired

a. Specialization in Early Childhood Development
   **GENERAL EDUCATION** 
   81-85 hours
   **Communications** (12 hours)
   English 1510-120; Speech 1211 or 2311 or Communication 1110.
   **Health and Physical Education** (10 hours)
   Health 3510, Physical Education 3450; Physical education electives.
   **Psychology** (4 hours)
   Psychology 2500.

b. Humanities (15-16 hours)
   English literature
   11-12 hours electives
   (choose 2 areas: anthropology, art, history, philosophy, foreign language
   above introductory level); religious studies, music, library and information science.
   **Mathematics** (3 hours)
   Mathematics 2110.

### Natural Sciences (3 hours)
- 8-12 hours in biological science;
  (choose one series) Biology 1210-20-30; Botany 1110-20.
- 8-12 hours in physical science;
  Physics 1410-20-30; Geology 1510-20; Astronomy 2110-20-30.

### Social Studies (17-20 hours)
- History 1510-20 or 2510-20
- Anthropology and Speech Pathology 3010, 4200, 4230, 4250, 4280, 4290, 4351, 4361, 4371, 4870, 4871; and Pre-Student Teaching Seminar.

### Area of Specialization
- 30-39 hours
  - English 1110-20 or 2311 or Communication 1110.
  - Specialization in Speech Pathology 3060 recommended;
  - Audiology and Speech Pathology 3010, 4700, 4930 (or 5950);
  - Special Education 3333, 4190, 4200, 4220, 4230, 4250, 4280, 4290, 4351, 4361, 4371, 4870, 4871;
  - and Pre-Student Teaching Seminar.

### TOTAL MINIMUM REQUIRED
- 187 hours

### b. Specialization in Elementary Education

### GENERAL EDUCATION
- 84 hours

### Communications (12 hours)
- English 1510, 1520, Speech 1211 or 2311 or Communication 1110.

### Health and Physical Education (15 hours)
- Physical Education 3450; School Health 3510, 3610; Physical education electives.

### Psychology (4 hours)
- Psychology 2500.

### Humanities (12 hours)
- Literature (8); elective from philosophy, art, religious studies, or music.

### Mathematics (3 hours)
- Mathematics 2110.

### Natural Sciences (20 hours)
- 8-12 hours in biological science;
  (choose one series) Biology 1210-20-30; Botany 1110-20.

### Social Studies (17-20 hours)
- History 1510-20 or 2510-20.

### TOTAL MINIMUM REQUIRED
- 187 hours

### d. Specialization in Multiply Handicapped

### GENERAL EDUCATION
- 82-83 hours

### Communications (12 hours)
- English 1510, 1520, Speech 1211 or 2311 or Communication 1110.

### Health and Physical Education (10 hours)
- School Health 3510; Physical Education 3450 and physical education electives.

### Psychology (4 hours)
- Psychology 2500.

### Humanities (15-16 hours)
- English literature;
  12 hours electives—choose 2 areas anthropology, art, history, philosophy, foreign language
  (above introductory level); religious studies, music, library and information science.

### Mathematics (3 hours)
- Mathematics 2110.

### Natural Sciences (20 hours)
- 8-12 hours in physical science;
  (choose one series) Biology 1210-20-30; Botany 1110-20.

### TOTAL MINIMUM REQUIRED
- 181 hours

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### G. Concentration in Speech and Hearing

### GENERAL EDUCATION
- 84 hours

### Communications (12 hours)
- English 1510-20, Speech 2311.

### Health and Physical Education (6 hours)
- Activities courses recommended; health and physical education electives (both areas must be chosen).

### Humanities (16 hours)
- English 4 hours (from 2000-level literature).

### Social Studies (17-20 hours)
- History 1510-20 or 2510-20.

### Psychology (4 hours)
- Psychology 2500.

### TOTAL MINIMUM REQUIRED
- 168 hours

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### H. Concentration in Crippled and Special Health Conditions

a. Completion of Elementary (K-9) or Secondary Education Curriculum.

b. Special Education and Rehabilitation 3333, 4190, 4200, 4220, 4230.

c. Special Education 3333, 4190, 4200, 4220, 4230, 4250, 4280, 4290, 4351, 4361, 4371, 4870, 4871; and Pre-Student Teaching Seminar.

### TOTAL MINIMUM REQUIRED
- 186 hours

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### CORE PROFESSIONAL COURSES
- 9 hours
  - Edu. C&I 3010*, 3020, 3030*.

### SPECIALIZED PROFESSIONAL EDUCATION AND MAJOR
- 67 hours
  - Audiology and Speech Pathology elective 3050 recommended; Speech 2120, 2430, 2830, 3010, 4700, 4930 (or 5950);
  - Special Education 3333, 4190, 4200, 4220, 4230, 4250, 4280, 4290, 4351, 4361, 4371, 4870, 4871; and Pre-Student Teaching Seminar.

### AREA OF SPECIALIZATION
- 30 hours
  - Selected from the following courses: Special Education 3310, 3353, 3520, 4110, 4120, 4130, 4150, 4140, 4440, 4450, 4460, 4470, 4490, 5520, and Special Education electives.

### TOTAL MINIMUM REQUIRED
- 186 hours
Education and Rehabilitation 3520, 4130, 4190, or 4250.

I. Concentration in Partially Seeing
a. Completion of requirements of Elementary (K-9) or Secondary Education Curriculum; b. Special Education and Rehabilitation 3333, 4160, 4850, 4923;

c. Quarter hours selected from the following: Special Education and Rehabilitation 3520, 4130, 4190, 4250, 4840;

d. Office Administration 2110 (for those lacking high school credits in typewriting).

TOTAL MINIMUM REQUIRED: Total hours required for endorsement in the above Special Education programs appear on curriculum sheets available from the faculty advisers.

VI. Vocational-Technical Education

A. Business Education
See curricula for Secondary Education (7-12) p. 96 for General Education and Professional Education requirements.

63 quarter hours in business and economics to meet five business endorsement areas approved by the department adviser. A statement of requirements and alternative programs may be obtained from the chairman of Business Education.

B. Distributive Education


SPECIALIZED COURSES ................................ 45 hours Business Admin. 1110; Office Admin. 4310 or 4230; Accounting 2110; Marketing 3110-20, 4140, 4310, 4150; 4210; Finance 3120; Industrial Management 3070; Textile elective; Business Law 4110; Distributive Educ. 4140; Advertising 3000.

ELECTIVES ........................................ 12 hours TOTAL MINIMUM REQUIRED .................. 183 hours

*Requires admission to Teacher Education Program.

C. Industrial Education

Option 1. Concentration in Trades and Industries GENERAL EDUCATION .................. 66 hours Communications (11 hours) English (8 hours); speech elective (3 hrs). Health and Physical Education (9 hours) Health and P.E. electives. (Both areas must be represented.) Humanities (15 hours) Literature elective (4 hrs). Two additional areas taken from the following: philosophy, anthropology, art, or creative literature, foreign language, music or religious studies. Mathematics (3 hours) Natural Science (12 hours) Psychology (4 hours) Psychology 2500.

Social Studies (12 hours) Two areas from the following must be represented: history, anthropology, economics, geography, political science, sociology.

PROFESSIONAL EDUCATION .................. 39 hours Education C&I 3010, 3020, 3030; Ed. Psych. 3810; Ind. Educ. 3210 or 3330; Ind. Educ. 3110, 3130, 4110, 4120, 4210, 4310, 4410 and/or 4420.

TEACHING AREAS .......................... 45 hours Ind. Educ. 1620, 1642, 1661, 2621, 3010, 3020, 3030, 3621, 4520 or Econ. 3410.

ELECTIVES ........................................ 36 hours TOTAL MINIMUM REQUIRED .............. 186 hours Option 2. Concentration in Industrial Arts GENERAL EDUCATION .................. 66 hours Communications (11 hours) English (8 hrs); speech (3 hrs). Health and Physical Education (9 hours) Health and P.E. electives. (Both areas must be represented.) Humanities (15 hours) Literature elective (4 hrs); art or art educ. (6 hrs); Additional hours taken from the following: history (upper division), philosophy, anthropology, foreign language (beyond introductory level), music or religious studies. Mathematics (3 hours) Natural Science (12 hours). Psychology (7-8 hours) Social Studies (12 hours) Two areas from the following must be represented: history, anthropology, economics, geography, political science, sociology.


TEACHING AREAS .......................... 39 hours Ind. Educ. 1620, 1642, 1661, 2621, 2641, 2652, 2690, 3640, 3681, 3662, 4662, 4670, 4671.

OPTIONS ........................................ 21 hours Option 1-Outside Minor Option II-Industrial Arts Sequence 1) Power and Energy Sequence: Ind. Educ. 1610, 1630, 2611, 2631, 3615, 3632, 4682. 2) Visual Communications Sequence: Ind. Educ. 3621, 4621, 4690, Journalism 3310, 3910, Broadcasting 4030, 3 hours visual communications electives.

ELECTIVES ........................................ 24 hours TOTAL MINIMUM REQUIRED .............. 186 hours

D. Agricultural Education See page 51 for this program.

E. Home Economics Education See page 153 for this program.

Departments of Instruction

Numbers in parentheses following the course titles indicate quarter hours credit offered.

Art and Music Education


Assistant Professors: W.H. McDaniel, M.S. Tennessee; J.P. Watkins, M.S. Tennessee.

Art Education (141)

1511 Field Experiences in Teaching Art (1) Field experiences in which students perform tasks related to teaching and to teacher roles. Satisfactory-No Credit. May be repeated for credit.

2100 Introduction to Art Education in the Schools (6) Art Grades 1 through 12; growth and development, objectives, motivation, evaluation. Experiences with school media. 1 hr and 2 labs.

2110 Drawing, Painting, and Design Activities in Elementary School (3) Prereq: 2100. 1 hr and 2 labs.

2120 Drawing, Painting, and Design Activities in Junior and Senior High School (3) Prereq: 2100. 1 hr and 2 labs.

3110 Crafts in the Elementary School (3) Prereq: 2100. 1 hr and 2 labs.

3210 Art in Secondary School Program (3) Program planning; materials and equipment; relation to other school experiences. Classroom observation. Prereq: nine quarter hours in art education: 1 hr and 2 labs.

3511 Field Experiences in Teaching Art (1) Field experiences in which students perform tasks related to art teaching roles. Satisfactory-No Credit. May be repeated for credit.

3920 Clay in School Program (3) Exploring methods of hand-built forms, glazing and firing procedures. Prereq: 2100. 1 hr and 2 labs.

3930 Textiles in School Program (3) Exploration of processes of weaving, stitching, batik, and silk screen. Prereq: 2100. 1 hr and 2 labs.

4120 Designing of Teaching Aids for Art in School Program (3) Design and preparation of charts, exhibitions, slides, films, and other teaching aids for art grades one through twelve. Prereq: 2100 or consent of instructor. 1 hr and 2 labs.

4130 Three-Dimensional Design in School Program (3) Exploration of wood, wire, metal, plastics, and other sculptural materials. Prereq: 2100 or consent of instructor. 1 hr and 2 labs.

4150 Lettering, Posters, and Displays in School Program (3) Design and layout; techniques and procedures. Prereq: 2100 or consent of instructor. 1 hr and 2 labs.

4160 Appreciation of the Arts in School Program (3) Prereq: 2100 or consent of instructor. 1 hr and 2 labs.

4350-60-70 Problems in Art Teaching (3, 3, 3) Prereq: Consent of instructor.

4410 The Administration and Organization of Recreational Arts and Crafts Programs (3) Purpose of art activity in recreation; scope of activities, organizational procedures, resources, and coordination required in community arts and crafts programs.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5210 Organization, Administration, and Supervision of Art in the School Program (3)

5310 Art of Education (3)

5320 Program Development in Art Education (3)

5850-60-70 Problems in Art Education (3, 3, 3)

Music Education (707)

The curricula in music education provide for five areas of concentrations: vocal music (voice principal); vocal music (piano or organ principal); elementary music education (voice principal); elementary music education (piano or organ principal); and
1002 College of Education

instrumental music.

1010-20 Choral Laboratory (1, 1) Choral conduct- ing: methods and materials, required of all music education majors. Prereq: approval of instructor.

1511 Field Experience in Teaching Music (1) Field experiences in which students perform tasks related to teaching and to teacher roles. Satisfactory-No Credit. May be repeated for credit.

2100 Basic Experiences in Classroom Music (3) Vocal, instrumental, rhythm, listening, music reading, and creative activities. For music education majors. Prereq: approval of instructor, one year of music theory. 2 hrs and 1 lab.

2110 Experiences in Classroom Music (3) Vocal, instrumental, rhythm, listening, music reading, and creative activities. For music education majors. Prereq: approval of instructor, one year of music theory. 2 hrs and 1 lab.

2411-12-13 Methods, Materials, and Techniques of String Class Instruction (2, 2, 2) Structure, use, techniques of playing, care, and repair of principal instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials. 2 hours per week.

2421-22-23 Methods, Materials, and Techniques of Woodwind Class Instruction (2, 2, 2) Structure, use, techniques of playing, care and repair of principal instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials. 2 hours per week.

2431-32 Methods, Materials, and Techniques of Brass Class Instruction (2, 2) Structure, use, techniques of playing, care and repair of principal instruments in school instrumental organizations. Emphasis on techniques necessary for basic understanding and effective teaching of the instruments. Practical use of current instructional materials. 2 hours per week.

3110 Teaching Music in the Primary Grades (3) Singing, rhythmic, instrumental, listening, creative, and music reading activities; evaluation; materials appropriate for Grades K-3. For elementary education majors only. Prereq: 2100 or 2110, Educational Psychology 2430, upper-division standing.

3120 Teaching Music in the Intermediate and Upper Grades (3) Singing, rhythmic, instrumental, listening, creative, and music reading activities; evaluation; materials appropriate for Grades 4-6. Primarily for elementary education majors. Prereq: Music 2100 or 2110, Educational Psychology 2430 and upper-division standing.

3130 Teaching Music in the Elementary School (3) Singing, rhythmic, instrumental, listening, creative, and music reading activities; evaluation; materials appropriate for grades K-6. For music education majors only. Prereq: 2110, Educational Psychology 2430 and upper-division standing.

3141 Guiding Musical Learning Experiences in the Primary Years (3) Course designed primarily for music education student majoring in elementary music education in which emphasis is given to musical skills and learnings appropriate for children, ages five through eight. Prereq: 2110 and Educational Psychology 2430.

3142 Guiding Musical Learning Experiences in the Intermediate Years (3) Course designed primarily for music education student majoring in elementary music education in which emphasis is given to musical skills and learnings appropriate for children, ages nine through eleven. Prereq: 3141.

3150 Teaching Music in Junior and Senior High Schools (3) Procedures, techniques, curriculum, scheduling, administration, evaluation, materials and equipment, community relations. Prereq: Two years of music theory.

3410-20 Teaching Instrumental Music (3, 3) Problems and techniques, materials, instrument and equipment selection. Prereq: six hours credit from 2411-21-31 series.

3511 Field Experiences in Teaching Music (1) Field experiences in which students perform tasks related to teaching and to teacher roles. Satisfactory-No Credit. May be repeated for credit.

4350-60-70 Problems in Music Teaching (3, 3, 3) Problems and techniques, materials, instrument and equipment selection. Prereq: one year of music theory.

4410 The Administration and Organization of Recreational Music Programs (3) Purpose of music in recreation; scope of activities, organizational procedures, resources, and coordination required in community music programs.

4420-30 Choral and Instrumental Conducting (3, 3) Reading, conducting, and interpretation of vocal and instrumental scores suitable for school, church, and community groups. 4420 deals with vocal music. 4430 with instrumental music. Prereq: 1010-20 and three hours credit from 2411-21-31 series and two years of music theory. Must be taken in sequence. 2 hrs and 1 lab.

4441-42-43 Teaching Class Piano (1, 1, 1) For majors in music, music education, and elementary education. Prereq: approval of instructor.


4460 Marching Band Techniques (3) Functions, organization, and direction of a school marching band. Prereq: Senior standing and approval of instructor.

4510 Choral Methods and Materials (3) Organization and administration, teaching techniques, choral literature, and interpretation. Prereq: 1010-20, 4420, one year of voice instruction, two years of music theory. 2 lecture hrs and 2 one-hr labs; labs meet with 1010-1020.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5150 Studies in Secondary School Music (3)

5210 Psychological Foundations in Music (3)

5220 Administration and Supervision of School Music (3)

5230 Comparative Teaching Procedures in Music Education (3)

5240 Evaluation Procedures in Music Education (3)

5250 Role of Music in Education (3)

5260 Music for Early Childhood (3)

5270 Studies of Music for Children in Primary Grades (3)

5320 Advanced Choral Literature and Conducting (3)

5350-60-70 Special Problems in Music Education (3, 3, 3)

5410 Advanced Band Literature and Conducting (3)

5510-20-30 The Talent Education Program of Shinichi Suzuki (2, 2, 2)

5710 Research in Music Education (3)

5810-20-30-40 Seminar (3, 3, 3, 3)

Continuing and Higher Education (267)


GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5060 Adult Education: A General Survey (3)

5110 Seminar in College Teaching (3)

5330 Theory and Research in Human Learning (3)

5360-70 Problems in Continuing and Higher Education (3, 3)

5440 American Higher Education (3)

5450 Instruction in Higher Education (3)

5660 Adult Development (3)

5510 Governance of Colleges and Universities (3)

5550 Fiscal Problems in Higher Education (3)

5660 Program Planning in Continuing and Higher Education (3)

5860 The Community-Junior College (3)

5955-65-75 Practicum in Continuing and Higher Education (3, 3, 3)

5960-70 Seminar in Continuing and Higher Education (3, 3)

6450 Community Education for Adults (3)

(See also course listings under the Departments of Curriculum and Instruction, Educational Administration and Supervision, and Educational Psychology and Guidance.)

Curriculum and Instruction (301)


*Alumni Distinguished Service Professor.
Undergraduate programs in the Department of Curriculum and Instruction provide the general professional courses for the preservice education of teachers in elementary and secondary schools.

1410 Efficient Reading and Study Skills (1) Improvement of reading and study skills. Satisfactory-No Credit. 2010-20-30 Field Study in Education (3, 3, 3) Problems of teachers in active service in the fields of methods of teaching, curriculum materials, school-community relationships, and school organizations.

3010 History and Philosophy of Education (3) Role of philosophy in education; realism, Neo-Thomism, pragmatism, behaviorism, and other contemporary movements; major ideas, historical roots, and modern applications. Prereq.: admission to Teacher Education. Undergraduate credit only.

3020 Principles and Organization of Education (3) Relation to current educational problems and practices; organizational patterns; financing of public education; professional organization of teaching. Undergraduate credit only.

3030 Social Foundations and Curriculum (3) Culture and society and their influences on curriculum; principles, problems, and procedures of subject matter selection, sequence, grade placement, and time allotment; curriculum issues; State curriculum policies and practices. Prereq.: admission to Teacher Education. Undergraduate credit only.


3150 Analysis of Teaching (3) Use of interaction analysis to describe and classify verbal behavior techniques. Prereq.: consent of instructor.

3180 Microteaching (3) Emphasis upon the development of instructional skills. Students teach a selected lesson with feedback of students in elementary or secondary schools. Lessons are videotaped, and the students and instructor evaluate the teaching behaviors recorded on the tape. Prereq.: consent of instructor.

3260 Teaching Language Arts in the Elementary School (3) Methods and materials in teaching writing, spelling, and language. Undergraduate credit only. Should be taken prior to or concurrently with CAE 3280. Prereq.: Educational Psychology 2430 or equivalent, admission to Teacher Education.

3270 Teaching Social Studies in the Elementary School (3) Methods and materials. Undergraduate credit only. Prereq.: Educational Psychology 2430 or equivalent, admission to Teacher Education.

3280 Teaching Developmental Reading in the Elementary School (3) Beginning course in sequence designed to enable preservice teachers to develop skills and understandings necessary for operation of successful developmental reading programs in the elementary school. Prereq.: Ed. Psych. 2430 or equivalent and admission to Teacher Education.

3281 Teaching Developmental Reading in the Elementary School (3) Second course in sequence designed to enable preservice teachers of reading in the elementary school. Prereq.: Ed. Psych. 2430 or equivalent and admission to Teacher Education.

3310 History of Education (3) 3320 History of Education in the United States (3) 3350 Teaching Arithmetic in the Elementary School (3) Goals, methods, materials, and evaluation. Undergraduate credit only. Prereq.: Educational Psychology 2430 or equivalent. Mathematics 2110-20-30, admission to Teacher Education.

3510 Books and Related Materials for Children (3) (Same as Library and Information Science 3610.) 3511-12-13 Field Experiences in Teaching: Elementary (1, 1, 1) Field experiences in which students perform tasks related to teaching and to teacher roles. May be taken separately or concurrently by consent of instructor. Must be taken concurrently, or by consent of instructor. Satisfactory-No Credit.

3520 Books and Related Materials for Young People (3) (Same as Library and Information Science 3520.) 3512-22-23-24 Field Experiences in Teaching: Secondary (1, 1, 1) Field experiences in which students perform tasks related to teaching and to teacher roles. May be taken separately or concurrently. By consent of instructor. Satisfactory-No Credit.

3531-32-33 Field Experiences in Teaching: Social Foundations (1, 1, 1) For description, see 3521-22-23. Satisfactory-No Credit.

3561 Teaching of Speech and Drama, Grades 7-12 (3) For description, see 3563.

3562 Teaching of Modern Foreign Languages: Oral Communication, Grades 7-12 (3) For description see Educ. C & I 3635. This course and Educ. C & I 3636 are required for certification in foreign languages. Must be taken concurrently with 3563.

3563 Teaching of Modern Foreign Languages: Reading, Literature, Grammar and Composition, Grades 7-12 (3) For description see Educ. C & I 3635. This course and Educ. C & I 3636 are required for certification in foreign languages. Must be taken concurrently with 3562.

3565 The Teaching of Social Studies, Grades 7-12 (3) Purposes, techniques, materials, and evaluation; directed observation in public schools; preparation of teaching plans and materials. Undergraduate credit only. Prereq.: Educational Psychology 3610 or equivalent.

3564 The Teaching of Science, Grades 7-12 (3) For description, see 3563.

3565 The Teaching of Latin, Grades 7-12 (3) For description, see 3563. (Same as Classics 4210.) 3567 Language, Composition and Speaking, Grades 7-12 (3) For description, see 3563. Both this course and Educ. C & I 3668 are required for certification in English.

3568 Teaching Reading, Literature, and Listening, Grades 7-12 (3) For description, see 3563. Both this course and Educ. C & I 3667 are required for certification in English.

3720 Teaching Science in the Elementary School (3) Methods and materials, undergraduate credit only. Prereq.: Ed Psych 2430 or equivalent, admission to Teacher Education.

3751 Teaching of Mathematics: Numerical and Algebraic Concepts, Grades 7-12 (3) For description, see Educ. C & I 3625. Both this course and 3752 are required for certification in mathematics.

3752 Teaching of Mathematics: Geometry and Analysis, Grades 7-12 (3) For description, see Educ. C & I 3625. Both this course and 3751 are required for certification in mathematics.

4010 International Education: Europe and the Americas (3) Historical, philosophical and sociological foundations; special reference to England, USSR, France and Germany.

4110 Philosophies of Education in Cultural Perspective (3) Education in relation to liberal, conservative, reactionary, and radical currents of thought in American culture.

4150 School Library Administration (3) (Same as Library and Information Science 4150.) 4210 Curriculum in Elementary School Social Studies (3) Survey of 245 curricular approaches and trends in elementary school social studies. Prereq.: teaching experience or student teaching.

4215 Teaching Elementary School Science (3) Methods and materials used in teaching of science in elementary school. Developmental and diagnostic/corrective programs. Not open to students with recent course or background in teaching of elementary school science.

4216 Teaching Elementary School Mathematics (3) Methods and materials used in teaching of mathematics in elementary school. Developmental and diagnostic/corrective programs. Not open to students with recent course or background in teaching of elementary school mathematics.

4217 Teaching Elementary School Language Arts (3) Methods and materials used in teaching of elementary school language arts. Development of functional relationships with other curriculum areas, diagnostic procedures, and corrective work. Not open to students with recent course or background in teaching of elementary school language arts.

4250 Initiating the Activities Program (3) Prereq.: Educational Psychology 2430, six quarter hours of methods of teaching in the elementary school, and junior or senior standing.

4260 Philosophy of Education: Introductory Studies (3) Truth, knowledge, and valuation in relation to work of the schools. Prereq.: 3010, Educational Psychology 2430 or 3810, or equivalents.

4261 Educational Classics (3) Discussion of selected writings on education from Plato to Dewey.

4280 Diagnosis and Correction of Classroom Reading Problems (3) Prereq.: 3280 or equivalent.

4300 Developmental Reading in the Secondary School (3)

4301 Teaching Developmental Reading (3) Methods and materials used in teaching of reading in the elementary school. Course includes development of functional relationships with other curriculum areas, diagnostic procedures and remedial work. Not open to students with recent course work or background in the teaching of reading.

4303 Language Development of Children: Birth-Preadolescence (3) In-depth view of language development during years of birth through preadolescence; application of process of language development to instructional programs for early and middle childhood.

4340 The Junior High School and Middle School (3) To identify and analyze distinguishing characteristics of the Junior High and Middle School curriculums.

4350-60-70 Problems in Teaching English (3, 3, 3)

4351-61-71 Problems in Teaching Mathematics (3, 3, 3)

4352-62-72 Problems in Teaching Social Studies (3, 3, 3)

4353-63-73 Problems in Teaching Science (3, 3, 3)

4354-64-74 Problems in Teaching Language Arts (3, 3, 3)

4355-65-75 Problems in General Curriculum (3, 3, 3)

4356-66-76 Problems in Instructional Materials (3, 3, 3)

4357-67-77 Problems in Teaching Foreign Languages (3, 3, 3)

4359-69-79 Problems in Teaching Conservation (3, 3, 3)
4851 Student Teaching in Early Elementary School (K-3) (9) Application filed no later than second quarter of junior year with placement at least one quarter prior to quarter of graduation. Prereq: Educ. C&I 3260, 3270 or 3720, 3280, 3350, 4450; CFS 3120, 3210. S/N/C.

4860 Programmed Learning (3) Theories of learning as related to technology of programmed instruction. Techniques and applications of programming. 2 lectures and 1 lab. Prereq: Psychology 3120, Educational Psychology 3120, or permission of instructor. (Same as Psychology 4860.)

GRADUATE
Graduate instruction in the Department of Curriculum and Instruction provides opportunities to improve the effectiveness of educational service in a number of areas.

5000 Thesis
5002 Non-Thesis Graduation Completion (3)

5040 Seminar in Early Elementary School Language Arts (3)

5100 History of European Education (3)

5110 History of Education (3)

5120 Principles of Education (3)

5140 Comparative Philosophies of Education (3)

5141 Pragmatism in Education (3)

5142 Existentialism in Education (3)

5143 Supervised Readings in Philosophy of Education (3)

5150-60-70 Seminar (1, 1, 1)

5180-90-5200 Educational Specialist Research and Thesis (3, 3, 3)

5210 Seminar in International Education: Asia and Africa (3)

5211 Instructional Strategies in Elementary School Social Studies (3)

5220 Supervised Readings in International Education (3)

5230 Diagnosis and Remediation of Arithmetic Difficulties (3)

5240 Creative Thinking and Expression in Elementary School (3)

5250 Secondary School Instruction (3)

5270 The Elementary School Curriculum (3)

5280 Teaching Language Arts in the Elementary School (3)

5281 Teaching Social Studies in the Elementary School (3)

5282 Teaching Science in the Elementary School (3)

5283 Programs and Materials in Teaching Elementary Science (3)

5284 Seminar in Teaching Elementary Science (3)

5290 The Teaching of Mathematics in the Elementary School (3)

5291 Programs and Materials in Elementary School Language Arts (3)

5292 Seminar in Research and Theory in Teaching Mathematics in the Elementary School (3)

5302 Psychology of Reading (3)

5304 Programs and Materials for Reading Instruction (3)

5305 Trends and Issues in Teaching Reading (3)

5306 Teaching Reading to the Linguistically Different Learner (3)

5350 Curriculum Development and Evaluation (3)

5360-70 Curriculum Development in the Local School (3, 3)

5365 Mathematics Laboratories in Elementary School (K-9) (3)

5380 Diagnosis of Remedial Reading Problems (3)

5381 Remediation of Remedial Reading Problems (3)

5382 Developmental Reading Practice (3)

5383 Remedial Reading Practice (3)

5390 Organization and Administration of Reading Programs (3)

5410 The High School Curriculum (3)

5530 Curriculum Laboratory for High Schools (3)

5580 Curriculum Planning and Development (3)

5610 Educational Statistics (3)

5620 Problems in Direction and Supervision of Student Teaching (3)

5630 Practicum in the Individualization of Instruction (3)

5640 Newer Trends in Elementary Education (3)

5650-60 Curriculum Laboratory for Elementary Schools (3, 3)

5670 Curriculum Laboratory for Early Childhood Education (3)

5691 Production and Use of Audio-Visual Materials (3)

5710 Techniques of Research in Education (3)

5720 Classroom Observation and Analysis (3)

5800 Seminar in Cooperative Curriculum Research (3)

5820 Seminar in the Teaching of Mathematics (3)

5825 Teaching Mathematics in the Middle and Junior High School (3)

5830 Seminar in Mathematics Education (3)

5835 Teaching Mathematics in the Senior High School and Community/Junior College (3)

5841 Trends and Issues in Early Childhood (3)

5842 Problems in Education: Early Childhood (3)

5843 Seminar in Early Childhood Education (3)

5844 Mathematics in Early Childhood Education (3)

5845 Social Studies and Science in Early Childhood Education (3)

5846 Language Arts in Early Childhood Education (3)

5850-60-70 Problems in Education: English (3, 3, 3)

5851-61-71 Problems in Education: Mathematics (3, 3, 3)

5852-62-72 Problems in Education: Social Studies (3, 3, 3)

5853-63-73 Problems in Education: Science (3, 3, 3)

5854-64-74 Problems in Education: Language Arts (3, 3, 3)

5855-65-75 Problems in Education: General Curriculum (3, 3, 3)
5856 Problems in Education: Instructional Materials (3)
5866-76 Problems in Education: Instructional Materials (3, 3)
5857-67-77 Problems in Education: Foreign Languages (3, 3, 3)
5859-69-79 Problems in Education: Conservation (3, 3, 3)
5900 Seminar in the Teaching of English in the Secondary School (3)
5901 Linguistics and the Teacher of English (3)
5902 Teaching Composition in the High School (3)
5903 Teaching Fiction in the Secondary School (3)
5904 Teaching the Mass Media in the English Classroom (3)
5905 Teaching English in the Community/Junior College (3)
5906 Teaching Poetry in Grades 7-12 (3)
5907 Teaching Drama in Grades 7-12 (3)
5908 Developing Speaking and Listening Skills in Grades 7-12 (3)
5909 Instructional Theory and Design (3)
5910-20-30 Problems in Lieu of Theses (3, 3, 3)
5911 Directing the Forensic Program (4)
5912 Play Production in Secondary Schools (4)
5950 Reflective Thinking: The Method of Education (3)
5960 Teaching Natural Science (3)
5961 Seminar in Science and Environmental Education (3)
5970 Teaching the Social Studies (3)
5980 Projects, Programs, and Materials in Social Studies (3)
6000 Doctoral Research and Dissertation
6010 Studies in English Education (3)
6020 Seminar in Teaching the Social Studies (3)
6030 Research and Theory in Teaching Reading (3)
6031 Seminar in Reading and Language Arts (3)
6040 Seminar in Curriculum and Instruction (1, 1, 1)
6060 Philosophy of Methodology in the Elementary School (3)
6070 Advanced Seminar in International Education (3)
6080 Advanced Seminar in Philosophy of Education (3)
6081 Phenomenology and Education (3)
6082 Philosophical Analysis and Education (3)
6150 Education as Social Policy (3)
6210 Seminar in Elementary School Social Studies Research (3)
6230 Programs for Curriculum Improvement (3)
6250 Seminar in History of Education (3)
6282 Advanced Studies in Elementary School Science (3)
6350 The Professional Education of Teachers (3)
6400 The Dynamics of Educational Change (3)
6500 Advanced Studies in Early Childhood Education (3)

5130 Introduction to Educational Administration (3)
5180-90-5200 Educational Specialist Research and Thesis (3, 3, 3)
5220 Philosophy and Theory In Educational Administration (3)
5230 Seminar in the Behavioral Sciences for Educational Administration (3)
5290 The Politics of Education (3)
5310 School Administration in a Multi-Ethnic Society (3)
5420 District Level Administration (3)
5430 Building Level Administration (3)
5440 Introduction to Law, Finance, and Business Management at the Building Level (3)
5450 Organization of the School Program (3)
5470 Introduction to School Facility Planning (3)
5480 Introduction to Supervision and Personnel Administration (3)
5490 Administration of Community Education (3)
5530 Introduction to Educational Planning (3)
5560 Analysis and Interpretation of Research for Educational Administrators (3)
5580 Seminar in Communication Skills for Educational Administrators (3)
5711-21-31 Problems in Educational Administration and Supervision: School Operation (3, 3, 3)
5712-22-32 Problems in Educational Administration and Supervision: Higher Education (3, 3, 3)
5713-23-33 Problems in Educational Administration and Supervision: State School Administration (3, 3, 3)
5714-24-34 Problems in Educational Administration and Supervision: Preparation Programs (3, 3, 3)
5715-25-35 Problems in Educational Administration and Supervision: Community Education (3, 3, 3)
5720 Seminar in Urban School Administration (3)
5730 School Business Management (3)
5740 School Law (3)
5751-61-71 Problems in Educational Administration and Supervision: Theory (3, 3, 3)
5752-62-72 Problems in Educational Administration and Supervision: Finance (3, 3, 3)
5753-63-73 Problems in Educational Administration and Supervision: Transportation (3, 3, 3)
5754-64-74 Problems in Educational Administration and Supervision: Business Management (3, 3, 3)
5755-65-75 Problems in Educational Administration and Supervision: Personnel (3, 3, 3)
5756-66-76 Problems in Educational Administration and Supervision: School Plant (3, 3, 3)
5757-67-77 Problems in Educational Administration and Supervision: Organization and Structure (3, 3, 3)
5758-68-78 Problems in Educational Administration and Supervision: School Law (3, 3, 3)
5759-69-79 Problems in Educational Administration and Supervision: Supervision (3, 3, 3)
5770 Maintenance of School Plants (3)
5780 Supervision (3)
5790 School Board-Superintendent Relationships (3)
5810 Survey Research Methods (3)

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6510 Advanced Studies in Elementary School Language Arts (3)
6710 Advanced Educational Statistics (3)
6720 Interpretation of Data (3)
6730 Theory and Evaluation in Curriculum Planning (3)
6731 Studies in Curriculum Theory and the Structure of Knowledge (3)
6740 Curriculum Workshops in Instructional Improvement (3)
6750-60-70 Problems in Curriculum and Instruction (3, 3, 3)
6830 Studies in Mathematics Education (3)
6850 Principles of Educational Leadership (3)

Educational Administration and Supervision (292)

**Professors:**

**Associate Professors:**

**Assistant Professor:**
P.M. Husen, Ed.D. Stanford.

*UT at Nashville.*

GRADUATE

5000 Thesis
5002 Non-Thesis Graduation Completion (3)
5100 Internship in Educational Administration (3)


*Memphis Center.*

1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

1000 Career Development: Exploration and Decision Making. 6 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

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1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)

1000 Career Development: Exploration and Decision Making. 4 credit hours. (3, 3) 5910-20-30 Problems in Lieu of Thesis (3, 3, 3)
School of Health, Physical Education, and Recreation

Madge M. Phillips, Director

At the undergraduate level, professional preparation programs are offered for teachers of health, physical education, dance, and/or recreation and for administrators of public health or recreation programs. For information on graduate programs leading to the Master of Science, the Master of Public Health, Educational Specialist, the Doctor of Education, or the Doctor of Philosophy degrees, see the Graduate School Catalog.

The School of Health, Physical Education, and Recreation also provides activities programs for all students in personal education and service courses in health and safety.

Health and Safety Education

Professors: R.H. Kirk (Chairman), H.S.D. Indiana; W.J. Huffman, Ed.D. Illinois; B.C. Wallace, Ed.D. Northern Colorado

Associate Professors: J.A. Ahmad, Ph.D. Oregon, M.D. Punjab (India); J.D. Gonski, Dr. Ph.D. UCLA, C.B. Hamilton, Dr. P.H. Oklahoma.

Assistant Professors: A.J. Pickett, M.S. Columbia; A.F. Thompson, Ph.D. Michigan.


Public Health (839)

1111 Principles in Personal Health (3) To develop ability to approach health scientifically and to develop justified confidence in judgments affecting personal health.

2040 Seminar in Human Sexuality (2) Problems and responsibilities of being male and female. Satisfactory-No Credit.

2050 Seminar in Drug Use and Abuse (2) Intensive look at problems related to use and abuse of drugs. Satisfactory-No Credit.

3000 Foundations of Health Science (3) In-depth study of content areas relating to personal health and contemporary health problems, i.e., mood modifying products, consumer health, international health, personal health practices, reciprocal relationships involving man, disease and environment. (Same as School Health 3000)

3210 First Aid and Emergency Care (4) Theory and practice of first aid and emergency care. Instruction in medical self-help. Course leads to Red Cross Certification in Advanced First Aid and Emergency Care. (Applicant must be at least 18 years of age for certification.) (Same as School Health 3210.)

3310 Communicable and Non-communicable Diseases (3) Modern concepts of diseases; etiology of common communicable and chronic disease problems including prevention and control. Prereq: One year of biological science and one course in bacteriology.

3320 Sanitation (3) History of sanitary awakening; disease-producing relationships and controls of water, sewage, refuse, milk, meat and other foods, air, insects, and soil; sanitation of homes, swimming pools, industrial plants, markets, restaurants, camps, and public bathing places. Healthful school living as affected by buildings and grounds, lighting, acoustics, thermal control, and safety provisions. Prereq: One year biological science, one course in microbiology. 2 hr and 1 lab.

3330 Introduction to Public Health (3) Philosophy, organization, and functions of federal, state, and local, official and voluntary public health agencies. Includes periodic field trips.

4120 Community Health Problems—Alcoholism (3) Explores problems of alcoholism regarding overall health of community. Emphasis placed on factors making alcoholism a serious public health problem. Various types of educational programs to control the disease covered.

4130 Community Health Problems—Suicide (3) Explores problems of suicide regarding overall health of community.

4140 Community Health Problems—Death Education (3) Exploration of ramifications of death and dying as related to personal and community health.

4210 Urban and Industrial Health (3) Health problems created by a burgeoning population and the megalopolis; industrial health problems of concern to management, supervisor, and industrial worker, control of occupational diseases, poisons, accidents, and other conditions incidental to industry.

4220 Communications for Better Health (3) Selective study of communications in health enterprise. Consideration in logical progression the problems of transmitting current and new information to practitioners, communications among members of modern health teams, among health agencies, and use of mass media for transmitting health information.

4410 Consumer Health and Safety Education (3) Survey of major consumer health and safety problems; selecting, purchasing, and financing of safety and medical services.

4411 Instructor’s Advanced First Aid and Emergency Care (3) Designed to teach First Aid. Satisfaction completion qualifies one for American National Red Cross Certification as an Advanced First Aid and Emergency Care Instructor. (A requirement for this certification is that an applicant must be at least 21 years of age.) Prereq: 3210 or valid Advanced First Aid and Emergency Care Certificate.

4420 Drug Abuse Education (3) Drug abuse problem and suspected causes; pharmacology of drugs and effects on society and methods of drug abuse education.

4700-10-20 Field Practice in Public Health (3, 3, 3) Field practice in public health under supervision of public health profession. Satisfactory-No Credit.

4730 Workshop in Public Health Education (3-6) For teachers, nurses, case workers, sanitarians, and other voluntary and public health agency personnel; emphasizes the problem solving approach through small group interaction, case method, and critical incident technique. May be repeated for credit.

4840-50-60 Problems in Public Health Education (1, 1, 1) Individual identification and study of current problems in public health education. Extensive reading and literature required.

GRADUATE

5002 Non-Thesis Graduation Completion (3)

5010-20-30 Workshop in Public Health (3-6, 3-6, 3-6)

5070-80-90 Field Practice and Seminar in Public Health Education (5, 5, 5)

5110 Environmental Health (5)

5120-30 Occupational Health and Safety (5, 5)

5140 Ergonomics and Work in Occupational Health and Safety (3)

5210 Ecosystem of Public Health Education (5)

5220 Health and Sickness in the Focus of Public Health Education (2)

5410 Epidemiology (3)

5420 Administration of Public Health (3)

5430 Vital and Medical Statistics (4)

5440 Methods and Materials in Public Health Education (4)

5540 Factors in Problem Solving for Community Health (5)
The Public Health Educator in Community Organization and Development (4)

Functions and Roles of the Public Health Educator (3)

Physical Activity and Health (5)

Advanced Professional Health Education: Health Planning I (3-5)

Advanced Professional Health Education: Health Planning II (3-5)

Advanced Professional Health Education: Health Planning III (3-5)

Dental Health Education (3-5)

Emergency Medical Services (3-5)

Family Health Unit (3-5)

Health and Medical Care Legislation and Law (3-5)

Health Facilities Administration (3-5)

Health Services Administration (3-5)

Occupational Health Unit (3-5)

Self-Care Unit (3-5)

The Training of Paramedical Personnel (3-5)

Problems in Public Health Education (1-3, 1-3, 1-3)

Doctoral Research and Dissertation

Critical Analysis of Writing and Research in Health Education (3)

Seminar in Health Education (3, 3)

Health Aspects of Gerontology (3)

Seminar on the Nation's Health (3)

International Health (3)

Safety (890)

Principles of General Safety (3) Deals with principles, practices and procedures in general safety. Covers safety problems in school traffic, recreation, industry, home, and other public areas.

Problems in Safety (1-3, 1-3, 1-3) Individual identification and study of current problems in safety.

Driver and Traffic Safety Education (5) Preparation of teachers of driver education in schools and colleges. Students are required to teach at least one non-driver. Valid driver's license required, 3 hrs and 2 labs.

Advanced Driver and Traffic Safety Education (5) Development of competency in teaching of driver education through use of simulation, multimedia and multiple-car driving range. Emphasis placed on teaching skills and supervision. Prereq: 4410.

Sports Safety (5) Accident prevention and injury control in sports activities; philosophy of sports safety; human environmental factors and their interrelationships in sports injury and their control; risk-taking and decision solution strategies; and contributions of sports medicine to safety. 3 hrs lecture and 2 hrs lab.

Workshop in Safety (3-6) Deals with special safety education problems. For advanced undergraduate students, graduate students, teachers, supervisors, and administrators. May be repeated for credit.

Graduate Studies

Thesis (5000)

Non-Thesis Graduation Completion (3)

Behavioral Problems in Safety Education and Accident Prevention (3)

Problems and Research in Accident Prevention (3)

Organization, Administration and Supervision of Safety Programs (3)

Civil and Defense Education (3)

Graduate Workshop in Safety (3-6, 3-6)

Problems in Safety (1-3, 1-3, 1-3)

Current Issues in Safety Education (1, 1, 1)

Internship and Research in Safety Education (3, 3, 3)

School Health (888)

Foundations of Health Science (3) (Same as Public Health 3000.)

First Aid and Emergency Care (4) (Same as Public Health 3210.)

School Health Instruction (3) Selection of health content in school curriculum.

School Health Services (3) Development, maintenance, and protection of health of students including examination, screening, special services, communicable disease control, emergency care, and school health records.

The School in Community Health (3) Role of teacher in community health education; school’s responsibility in promoting healthful living and the place of existing media and agencies in program. Not open to health and physical education majors.

Methods in Elementary Health Instruction (3) Preparation and presentation of health topics. Teaching method is emphasized and student participation stressed. Required for elementary teachers. Prereq: 3510 or Public Health 1110 or Nutrition 1230.

The Teaching of Sex Education (3) Trends, content, methods, and materials.

Methods in Secondary Health Instruction (3) Preparation and presentation of health topics. Teaching method is emphasized and student participation is stressed. Prereq: 3410.

Workshop in School Health Education (3-6)

For advanced students, teachers, school administrators, nurses and other para-medical school personnel. Lectures, demonstrations, films, field trips, and supervised research in special health problems. May be repeated for credit.

Problems in School Health Education (1, 1, 1) Individual identification and study of current problems in school health education. Extensive reading of literature required.

Graduate Studies

Thesis (5000)

Non-Thesis Graduation Completion (3)

Problems and Practices in School Health (3)

Curriculum Construction in School Health Instruction (3)

Evaluation in School Health Instruction (3)

School Health Program Surveys (3)

School Health Administration and Supervision (3)

Workshop in School Health Education (3, 3)

Graduate Workshop in Health Education (3-6, 3-6, 3-6)

Problems in School Health Education (1-3, 1-3, 1-3)

Doctoral Research and Dissertation

Critical Analysis of Writing and Research in Health Education (3)

Physical Education (764)

Professor: M.M. Phillips (Director), Ph.D., Iowa; G.F. Brady (Emeritus), Ph.D., Iowa; E.K. Capen, Ph.D., Iowa; B.D. Franks (Chairperson), Ph.D., Illinois; A.J. Koazar, Ph.D., Michigan; H.J. Montoye, Ph.D., Illinois; B.A. Plotnick, Ed.D., Boston; H.B. Watson, Ph.D., Michigan; G.H. Welch, Ph.D., Florida.

Associate Professors: E.T. Howley, Ph.D., Wisconsin; N.E. Lay, Ph.D., Florida; B.L. Mead, Ph.D., Purdue.

Assistant Professors: P.A. Borowiak, M.S., Tennessee; C.J. Johnson, M.S., Tennessee; J.L. Lewis, Ed.D., Tennessee; M.G. McCutchen, M.S., Tennessee; B.L. Morgan, M.S., Brigham Young; C.G. Shell, M.A. Florida State; I. Sliger, M.S., Tennessee; B.G. Ulrich, M.A. North Carolina.


Career Orientation and Performance Pre-requisites in Physical Education (2) Introduction to physical education with special emphasis on analyzing motor skills of each student. Satisfactory-No Credit. No substitution.

Physical Education: Swimming (1)

Physical Education: Bowling (1)

Physical Education: Basketball (1)

Physical Education: Tennis (1)

Physical Education: Soccer-Speedball (1)

Physical Education: Volleyball (1)

Physical Education: Golf (1)

Dance Production (2, 2, 2) Preparation and presentation of public dance performances. Prereq: approval of instructor.

Orientation in Dance—Appreciation (3) History, aesthetic principles, and current trends in dance.

Administration of Athletics (2) Conduct of program of athletic sports in high schools and colleges.

Beginning Dance Techniques (2) Analytical and practical study of modern dance movements.


Beginning Jazz Techniques (2) Instruction and practice in styles and techniques of jazz dance.

Rhythmic Analysis (2) Emphasis on analysis of organic movement. Prereq: junior standing; consent of instructor.

Beginning Dance Composition (2) Experience in creative forms of dance. Prereq: 3010.

Beginning Ballet Techniques (2) Introductory course designed to acquaint students with discipline of classical ballet, cultural, and educational values, and relationship to other dance forms.

Officiating Women's Volleyball (3) Officiating based on rules of National Association for Girls and Women in Sport. Completed tests and ratings will be given. Both men and women are encouraged to take the course.
3100 History of Dance and the Related Arts I (2) Dance history and the arts related to it from beginnings in primitive societies through the nineteenth century.

3110 Social Dance (2) Instruction, practice, and teaching in basic social dance steps.

3110 Athletic Coaching of Football (2) Fundamentals and coaching techniques. Prereq. approval of instructor.

3120 Coaching of Basketball (2) Individual and team fundamentals for the high school coach; attention given to conditioning, schedule making, and other business arrangements. Prereq. approval of instructor.

3130 Athletic Coaching of Track and Field Events (2) Techniques and training procedures. Prereq. approval of instructor.

3151 History of Dance and the Related Arts II (2) Survey of dance and the arts related to it tracing their development in the Western Hemisphere.

3160 Officializing Women's Basketball (3) Officializing based on rules of National Association for Girls and Women in Sport. National tests and ratings will be given. Both men and women are encouraged to take the course.

3170 Weight Control and Physical Activity (3) Theoretical knowledge of and practical experience in principles and methods of weight control and related activities.

3180 Track and Field (2) Methods and practical experience in various events of track and field. Special emphasis on teaching techniques, demonstration, progression, and analysis.

3200 Athletic Coaching of Baseball (2) Individual and team fundamentals for the high school and college coach. Prereq. permission of instructor.

3210 History and Principles of Physical Education (3) Principles from basic sciences of anatomy, bacteriology, physiology, psychology, and sociology applied to health, physical education and athletic coaching.

3220 Physical Fitness Activities (3) Teaching of calisthenics, conditioning activities, and weight training with emphasis on putting fundamental fitness concepts into muscular development of the body.

3240 Team Sports (2) Instruction, practice, and student teaching in selected team sports.

3250 Athletic Training Techniques (2) Theory and practice in the prevention and care of basic athletic injuries. Prereq. Approval of instructor.

3260 Practicum for Physical Education Majors (1-10) Observation, planning, coaching, and leadership experiences in physical education programs. Experiences are intended to cover the first three years of professional preparation. May be repeated. Maximum of 10 hrs credit. Satisfactory-No Credit.

3320 Applied Anatomy and Kinesiology (3) Bones, joints, ligaments, and muscles involved in movements, reaction of joints and muscular mechanism to bodily development and efficiency.

3330 Stunts and Tumbling (2) Instruction and practice; student teaching and lesson planning stressed with emphasis on safety techniques.

3430 Adapted Physical Education Laboratory (1) Practical work, including student teaching, supplementing 4110.

3450 Physical Education in the Elementary School (3) Movement experiences appropriate for elementary school children; planning and teaching the last developmental program.

3510 Conceptual Bases for Study of Human Movement Behavior (2) Bio-physical, percepto-cognitive, and psycho-social forces causing humans to move as they do. Prereq. 1011 or 1012.

3530 The Teaching of Swimming and Lifesaving (2) Certification in ARC Water Safety Instructor Training or Senior Lifesaving with additional practice in teaching of swimming.


3550 Psycho-Social Bases of Human Movement Performance (3) Factors affecting human movement performance, especially that of children, and consideration of factors employed to modify that performance. Prereq. 3510.

3560 Human Growth and Motor Development (3) Structural and functional changes in man from birth to old age, and relationship of changes to physical performance and skill development.


3610-20 Individual and Dual Sports (1, 1) Instruction, student teaching, and practice in organizing adult sport and recreational activities suitable for schools, churches, or community recreation centers.

3650 Teaching Strategies and Program Implementation in Elementary Physical Education (3) Understanding and employing teaching strategies appropriate to elementary physical education, and study of program content and implementation. Prereq. 3570.

3660 Basic Movement Sequences for Children (3) Movement patterns and skills which are fundamental to movement activity, with emphasis upon designing and presenting sequential learning tasks, and creative activity experiences. Prereq. or Coreq. 3650.

3670 Practicum in Developmental Movement for Early Childhood (3) Experiences in designing and presenting developmental movement tasks to preschool children. Prereq. or Coreq. 3660.

3680 Structured Movement Activities in Elementary Physical Education (4) Self-testing, games and sports, and dance activities included in elementary school physical education program, with emphasis upon designing and presenting sequential learning experiences. Prereq. 3670.

3710 Camping (2) Theory and practice in leadership with practical experience in camp craft skills.

3880 Social Recreation (3) Theory and practice in social recreation for camps, community centers, clubs, and schools. Course includes folk and square dance, quiet and active games, skits, stunts, other recreational activities, and program planning. (Same as Recreation 3880.)

4010 Advanced Dance Technique (2) Development, integration, and synthesis of previous dance vocabulary; emphasis on analysis and practice of dance principles, solo and group work. Prereq. 3020.

4020 Practicum in Dance Production (2) Prereq. consent of instructor.

4070 Dance for the Handicapped (4) Equipment, light design, properties, sets, and stage management.

4110 Adapted Physical Education (3) Classification of atypical students who require modified programs in physical education; activities and class organization suitable for required or special physical education classes.

4120 Administration of Physical Education (3) Selected topics in organization and administration problems related to physical education programs in schools. Emphasis placed on human relations approach to solving problems in administration.

4140 Tests and Measurements in Physical Education (2) Study of elementary statistics related to measurement. Critical examination of tests used to evaluate strength, sports skills, and physical fitness. Prereq. or coreq. 4300.

4150 Creative Rhythms for Children (3) Methods and materials for grades 1-6. 3 hrs and 1 lab.

4230 Program Planning in Physical Education (3) Curriculum building, course construction, and lesson planning for public schools and colleges.

4310 Folk and Square Dance (2) Materials and methods for public schools, colleges, and recreation centers.

4320 Tap Dance (2) Instruction, practice, and student teaching.

4330-40-50 (1, 1, 1) Specialization study in selected area of physical education.

4410 Wrestling (2) Theoretical and practical work for prospective teacher; emphasis on safety procedures.

4430 Women's Gymnastics (2) Development of skills on balance beam, uneven parallel bars, and side horse vaulting; special emphasis on progression, safety, and teaching techniques. Open to men and women. Prereq. 3350.

4440 Men's Gymnastics (2) Development of skills on pommel horse, parallel bars, and long horse vaulting. Special emphasis placed on safety, progression and teaching techniques. Open to men and women. Prereq. 4440.

4450 Men's Gymnastics II (2) Development of skills on still rings, horizontal bar, trampoline, and exhibition gymnastics; special emphasis placed on safety, progression and teaching techniques. Open to men and women. Prereq. 4450.

4460 The Coaching and Judging of Women's Gymnastics (3) Appreciation of techniques used in the coaching and judging of women's gymnastics according to the rules of the United States Gymnastics Federation. National tests and ratings will be given. Both men and women are encouraged to take this course. Prereq. 2734 or 4440.

4550 Methods of Teaching Dance (2) Individual work with analysis and criticism. Prereq. senior standing and approval of instructor.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5110 Administrative Problems in Physical Education (3)

5120 Problems of the Curriculum in Physical Education (3)

5130 Methods in Physical Education (3)

5210 Principles and Philosophy of Physical Education (3)

5220 Readings in Physical Education (3)

5230 Supervisory Problems in Physical Education (3)

5310 Analysis of Basic Motor Skills (3)

5320 Seminar in Research Techniques in Physical Education (3)

5410-20-30 Specialization Study in a Selected Physical Education Area (1-3, 1-3, 1-3)

5500 Advanced Kinesiology (3)

5510 Selected Topics in Anatomy (3)

5550 Physical Rehabilitation (3)

5580 Physical Activity and Health (5)

5600 Applied Physiology (6)

5610 Advanced Exercise Physiology (4)
5620 Experimental Techniques in Applied Physiology (3)
5650 Scientific Bases for Physical Education (3)
5810-20-30 Seminar in Physical Education (1, 1, 1)
5910-20-30 Problems and Projects in Physical Education (1-3, 1-3, 1-3)
6000 Doctoral Research and Dissertation
6010 Seminar in Physical Education (1)
6220 Independent Research (3)
6410 Practicum in Kinesiology (3)
6510-20 Issues and Problems in Physical Education (3, 3)
6610 Seminar in Exercise Physiology (2)
6640 Research Participation in Applied Physiology (1-6)
6810-20 Practicum (2, 2)

Service Program in Physical Education

The service program in physical education provides all students a program of physical education planned in accordance with their present and future needs and interests.

2701 ARC Advanced Life Saving (2)
2702 ARC Water Safety Instructor Training (2)
2703 ARC Water Safety Instructor for Handicapped (2)
2705 Archery (2)
2707 Badminton Elementary (2)
2708 Badminton Intermediate (2)
2711 Ballet Elementary (2)
2712 Ballet Intermediate (2)
2713 Ballet Advanced (2)
2714 Basketball (2)
2715 Bowling Elementary (2)
2716 Bowling Intermediate (2)
2717 Bowling Advanced (2)
2719 Equitation Elementary (2)
2725 Field Hockey (2)
2727 Flag Football (2)
2728 Folk and Square Dance (2)
2730 Foundations of Physical Fitness (Lecture, Lab, Activity) (2)
2731 Golf Elementary (2)
2732 Golf Intermediate (2)
2734 Women's Elementary Gymnastics (Coed) (2)
2735 Women's Intermediate Gymnastics (Coed) (2)
2736 Women's Advanced Gymnastics (Coed) (2)
2737 Handball Elementary (2)
2738 Handball Intermediate (2)
2739 Handball Advanced (2)
2741 Ice Skating Elementary (2)
2742 Ice Skating Intermediate (2)
2743 Ice Skating Advanced (2)
2745 Lacrosse Elementary (2)
2747 Modern Dance Elementary (2)
2748 Modern Dance Intermediate (2)
2749 Modern Dance Advanced (2)
2750 Modern Jazz (2)
2752 Paddleball Elementary (2)
2753 Paddleball Intermediate (2)
2755 Racquetball Elementary (2)
2756 Physical Fitness (Conditioning Program) (2)
2757 Men's Elementary Gymnastics (Coed) (2)
2758 Personal Fitness and Defense for Women (2)
2759 Men's Intermediate Gymnastics (Coed) (2)
2760 Soccer (2)
2761 Men's Advanced Gymnastics (Coed) (2)
2762 Social Dance (2)
2764 Softball (2)
2765 Sport in Society (2)
2766 Racquetball Intermediate (2)
2767 Squash Elementary (2)
2770 Racquetball Advanced (2)
2771 Swimming Elementary (2)
2772 Swimming Intermediate II (2)
2773 Swimming Intermediate (2)
2774 Swimming Advanced (2)
2775 Synchronized Swimming Elementary (2)
2776 Synchronized Swimming Intermediate (2)
2778 Tap Dance Elementary (2)
2779 Tap Dance Intermediate (2)
2781 Tennis Elementary (2)
2782 Tennis Intermediate (2)
2783 Tennis Advanced (2)
2784 Track and Field (2)
2785 Tumbling Elementary (2)
2786 Tumbling Intermediate (2)
2787 Tumbling Advanced (2)
2789 Volleyball Elementary (2)
2790 Volleyball Intermediate (2)
2791 Volleyball Advanced (2)
2792 Weight Control and Figure Improvement (2)
2794 Weight Training Elementary (2)
2795 Weight Training Intermediate (2)
2797 Wrestling Elementary (2)
2798 Wrestling Intermediate (2)

Recreation (853)

Associate Professor: M.L. Peters (Chairman), Ph.D. Illinois.
Assistant Professors: P. Borovjak, M.S. Tennessee; C.J. Johnson, M.S. Tennessee; K.L. Krick, Dr. Rec. Indiana.

1000 Field Practice (1-6) Supervised practice in an approved agency offering leisure services. May be taken for variable credit up to 6 hours. Each one-hour credit requires 25 contact hours in the field agency. For recreation students only. Prereq: Recreation 1000.

3000 Field Practice (1-6) Supervised practice in an approved agency offering leisure services. May be taken for variable credit up to 6 hours. Each one-hour credit requires 25 contact hours in the field agency. For recreation students only. Prereq: Recreation 1000 & 2000.

3100 Recreation Leadership Procedures (3) Principles and practice of recreation leadership; techniques and methods of working with individuals and groups in leisure activity.

3140 Philosophical Foundations of Recreation (3) Examination of recreation as personal experience; theories of play; philosophies of leisure and relationships to economy, ecology, health, government, culture, and self-realization; history of recreation movement.

3200 Planning Leisure Programs (3) Principles and methods employed in planning effective and well-balanced leisure time programs for varied groups in various settings.

3301 Outdoor Recreation Skills and Techniques I (3) Fundamentals necessary for safe participation in outdoor recreation activities such as: water, skiing, snowboarding, rock climbing, rappelling, and backpacking. Emphasis on natural environment without disturbance or destruction of plant and animal habitats. Prereq: consent of instructor.

3302 Outdoor Recreation Skills and Techniques II (3) Instruction in safe conduct of outdoor recreational activities such as: sailing, skin diving, caving, orienteering, and nature interpretation without disturbance of environment. Provision of outdoor recreation experiences for the handicapped. Prereq: consent of instructor.

3880 Social Recreation (3) (Same as Physical Education 3880.)


4130 Recreation Administration (3) Introduction to recreation administration, including planning, personnel, areas and facilities, program services, finances, and public relations. Prereq: 1100, 3100, 3140.

4200 Survey of Recreation for Special Populations (3) Responsibility of recreation profession to minority groups whose leisure opportunities and needs may require special servicing.

4500 Specialized Study in a Selected Area of Recreation (1-9) Comprehensive study in a selected specialized area within the broad field of recreation. For recreation students only. May be taken for variable credit up to 9 hours. May be repeated for a maximum of 9 hours credit with permission of the division. Prereq: Consent of instructor.

GRADUATE

5000 Thesis (9)

5002 Non-Thesis Graduation Completion (3)

5140 Leisure Service Delivery Systems (3)

5150 Current Issues in Recreation (3)

5240 Therapeutic Recreation (3)

5300 Seminar in Recreation (1)

5440 Problems and Projects in Recreation (1-9)

5450 Specialized Study in Recreation (1-9)
Special Education and Rehabilitation (933)

Professors:
R.M. Frey (Head), Ed.D. Illinois, E.E. Doll, Ph.D.
Pennsylvania; F.V. Easery (Emeritus), Ph.D.
Michigan; C.H. Haggis, Ed.D. Northern
Colorado; W.M. Holbert, Ph.D. Texas.

Associate Professors:
L.J. Colman, Ph.D. Kent; E.E. Glicking, Ph.D.
Southern Illinois; M.C. Hannum, Ed.D. Northern
Colorado; C.G. Meisel, M.Ed. Texas; J.H. Miller,
Ed.D. Auburn; L.C. Murphy, Ed.D. SUNY.
J.M. Nadolsky, Ed.D. Auburn; W.E. Woodrick,
Ed.S. Mississippi State.

Assistant Professors:
J.L. Cassell, Ph.D. Kansas; C.R. Colvin, M.Ed.
North Carolina; R.E. Kretschmer, M.S.
Northwestern; H. Sawyer, Ed.D. Auburn;

Instructors:
R.F. Bynum, M.S. Florida State; R.L. Dominique,
M.S. Pennsylvania; R.N. Freeman, M.A. MTSU;
M.H. Raulerson, M.A. Kentucky; J.E. Siehauf,
B.A. Gustavus Adolphus College; W.D. Smith,
M.S. Florida State.

Lecturers:
S.W. Mulkey, M.S. Tennessee; O.E. Reece, B.S.
Memphis State.

An experience program for regular
teachers, special teachers, and attendance
teachers may be planned to meet the needs of
exceptional children in relationship to the
program of general and special education.
Specialized courses may be distributed over
the several areas of exceptional children with
emphasis in an area of special interest or
need. Facilities are available for continuous
observation and participation in direct
relationships with exceptional children who
are hospitalized, homebound, in residential
schools, private schools, special classes, or regular classes.

Course sequences may be planned in the areas of
(1) crippling and special health conditions; (2) acoustically handicapped; (3)
mentally retarded; (4) gifted; (5) partially
seeing; (6) speech correction; (7) socially or emotionally maladjusted; (8) rehabilitation
counselor education.

The specialized professional courses in
special education may be taken at the
undergraduate or graduate levels. For
planning a program, the student should consult
an advisor in the chosen area.

DISABILITY EXAMINER EDUCATION
5700 Disability Evaluation: Issues, Processes, and
Programs (4)
5710-20 Medical Aspects of Disability Evaluation (4, 4)
5730 Vocational Assessment in Disability Evaluation
(3)
5740 Problems/Practicum in Work Evaluation (3)
5750 Principles and Problems of Disability Evaluation
(3)
5760 Seminar: Functional Capability Assessment (3)
5770-71 Current Problems in Disability Claims Evaluation
(1-3, 1-3)

Crippling and Special Health Conditions
4180 Teaching the Brain-Injured Child (3) Nature
of brain-injured child; skills for identifying educa
tional, physical, and emotional characteristics;
special educational techniques.

4190 Education Problems of Hospitalized and Homebound Children (3) School and home responsi
sibility for physical care and social relationships,
educational adjustment, vocational needs, and
collaboration with related service resources.

4840 Educational Problems of the Cerebral Palsied Child at Home and School (3) Physical, social,
and educational needs of cerebral palsied; evaluative
techniques; related services.

4921 Student Teaching in Crippling and Special
Health Conditions (3-15) Observation and supervi
sed practicum in home, hospital, and classroom.
Satisfactory-No Credit.

EDUCATION OF THE ACOUSTICALLY
HANDICAPPED
2110-20-30 Field Experience (1, 1, 1) Students
observes,-tutor, and perform teacher related tasks in
Special Education Programs. S/NC.
3210-20-30 Field Experience (1, 1, 1) Students
observes, tutor, and perform teacher related tasks in
Special Education Programs. S/NC.
4000 Rehabilitation Practicum (3) Evaluation of
client data in predicting rehabilitation prognosis.
Pre-req: 4230.

1910 Speech Development of the Hearing Impaired
(3) Anatomy and physiology of speech system.
Relationship of hearing to speech development.
Theories and techniques of speech development and
improvement; for hearing impaired children.
Pre-req: Speech Pathology 4190.

4200 Practicum in Speech Development of Hearing
Impaired (3) Application of theories and techniques of
speech development and improvement with hear
ing impaired children. Pre-req: 4190 and permission
of instructor. (Same as Audiology and Speech Pathology 4190.)

4210 Language Development of the Hearing
Impaired (3) Systems by which formal language is
presented. (Same as Audiology and Speech Pathology 4210.)

4220 Language Development for the Hearing
Impaired II (3) Techniques; various systems by
which formal language is presented. (Same as Audiology and Speech Pathology 4210.)

4230 Communication Processes for the Hearing
Impaired (3) Various communicative skills required
by hearing impaired person; speech and language
development; auditory training, speech reading,
manual language and its relation to other forms of
communication. Observation practicum. (Student
must acquire a degree of proficiency in use of
manual language.) Pre-req: Consent of instructor.

4240 Nature of Hearing Impairment I (3) Basic
principles of anatomy and physiology of hearing;
nature and causes of hearing loss; methods
and instrumentation for assessment of hearing level;
interpretation of audiological; selection and use of
hearing aids; role of audiologic services to
medical and other rehabilitative disciplines.
Observations and practice.

4250 Introduction to the Education and Psychology
of the Deaf (3) Offered for those planning to enter
field of teaching the deaf and hard-of-hearing.
Review of history of education of the deaf. Research
studies relating to psychology, social adjustment,
and learning of the deaf. Survey of professional
literature in adult and child. (Same as Audiology and Speech Pathology 4250.)

4280 Curriculum Development in Elementary and
Secondary Schools for the Deaf (3) Adaptation of
curriculum development and methods in public
school education to meet needs of deaf and hard of
hearing students in residential and integrated
settings.

4290 The Teaching of Reading to Hearing Impaired
Children (3) Reading activities, developmental
approaches, theories, and specialized materials for
curricula in teaching reading.

4311-61-71 Practicum in Special Education (3, 3, 3)
Students observe and deliver units of instruction in
Special Education Programs. S/NC.

4719 Audiology Laboratory (1) (Same as Audiology and Speech Pathology 4719)

4870 Student Teaching of Acoustically Handicapped
Children (8) Supervised practicum with
preschool, day school, and residential pupils.
Satisfactory-No Credit.

4871 Practicum with Acoustically Handicapped
Children (6) Satisfactory-No Credit.

5220 Linguistics in the Education of the Auditorially
Impaired (3)

5240 Seminar in Language Remediation for the
Hearing Impaired (3)

5280 Seminar on Educational Implications of
Language Deficiency (3)

5310-20-30 Manual Communication (2, 2, 2)

5410 Instructoral Media for the Handicapped: De
sign, Production, and Evaluation of Prototypical
Curriculum Materials for the Deaf (9)

5490 Educational and Vocational Guidance of the
Deaf and the Hard-of-Hearing (3)

5820 Curriculum Development Applied to Programs
for the Hearing Impaired (3)

EDUCATION OF THE EMOTIONALLY
DISTURBED
4610 Nature and Characteristics of Learning and Behavior Disorders (3) Forms of academic and
socially disturbing behavior, degrees of severity,
possible causes, and relationships to each other.

4620 Teaching of the Emotionally Disturbed Child
(3) Managing behaviors, models for instruction,
teaching techniques and materials, and teacher-
pupil family interpersonal relationships as basic to
academic achievement for the pupil. Pre-req: 4610.

4630 Practicum in Residential Settings Serving
Children with Disturbing Behavior (3) Practice in
scientifically identifying, observing, and recording
disturbing behaviors. Initiating behavior changes
regarding academic and social behaviors. To perform
in a tutorial capacity within a residential
classroom, and to take part in discussion and
evaluation of relevant academic curriculum and
reinforcement schedules. Pre-req: 4610 and 4620 or
permission of instructor.

4640 Practicum in Public School Systems Serving
Children with Learning and Behavior Problems (6)
Academic tutoring and remediation, and teaching
capacity within regular classrooms. Particular emphasis
and practice in individualizing instruction for
learning and behavior problem children within the
regular classroom setting. Discussion and evaluation of
relevant methods and materials unique to each
teaching situation. Pre-req: 4610 and 4620 or
permission of instructor.

4924 Student Teaching of the Emotionally Dis	urbed (6) Individual tutoring and classroom
observation and teaching. Pre-req or parallel: Education, Curriculum and Instruction 4720 or 4820,
Satisfactory-No Credit.

EDUCATION OF THE MENTALLY
RETARDED
4110 The Nature and Concept of Mental Retarda
tion (3) Identification, description, and study.

4120 Education of the Mentally Retarded Child (3)
Philosophy and rationale underlying the teaching
and guidance of the mentally retarded; methods
and materials in special and regular classes. Pre-req
or parallel: 4110.

4440 High School Program for the Mentally Retard
d (3) Trends, issues and research relating to
care and work study programs.

4810 Student Teaching Mental Retardation (3) Pre-
req: Major in education of mental retardation.
Satisfactory-No Credit.
4811 Student Teaching Mental Retardation (9) Prereq: Major in education of mental retardation. Satisfactory-No Credit.
4922 Student Teaching of the Educable Mentally Retarded (3) Observation and supervised practicum. Satisfactory-No Credit.
5111 Psychology of Mental Retardation (3)
5112 Psychology of the Severely Mentally Retarded (3)
5113 Advanced Curriculum for the Mentally Retarded (3)

EDUCATION OF THE VISUALLY HANDICAPPED
4160 Education of Partially Sighted Children (3) Curricular adjustments and materials; home visits for parents' cooperation in medical care and special needs.
4850 Eye Problems Encountered by the Teacher (3) Eye anatomy and hygiene; common diseases and defects; testing and treatment; educational adjustments for specific eye conditions; related service resources.
4923 Student Teaching of the Partially Seeing (3) Observation and supervised practicum in special and regular classes. Satisfactory-No Credit.

SCHOOL SPEECH AND HEARING THERAPY
3310 Articulation Disorders (4) (Same as Audiology and Speech Pathology 3310).
3710 Audiology I (4) (Same as Audiology and Speech Pathology 3710).
4030 The Public School Speech and Hearing Program (3) Organization, administration, and procedures.
4040 Appraisal of Speech and Language Disorders (4) (Same as Audiology and Speech Pathology 4040).
4310 Stuttering (4) (Same as Audiology and Speech Pathology 4310).

4320 Clinical Practice in Speech Pathology (1-6) (Same as Audiology and Speech Pathology 4320).
4330 Clinical Practice in Speech Pathology (1-6) (Same as Audiology and Speech Pathology 4330).
4340 Clinical Practice in Speech Pathology (1-6) (Same as Audiology and Speech Pathology 4340).
4341 Clinical Practice in Speech Correction in the Public Schools (3) Prereq: Audiology and Speech Pathology 4320-30-40, Special Ed. 4030 and consent of instructor. Satisfactory-No Credit.
4342 Seminar in Speech Correction in Public Schools (3) Prereq: Audiology and Speech Pathology 4320-30-40, Special Ed. 4030 and consent of instructor.

4400 Voice Disorders (4) (Same as Audiology and Speech Pathology 4400).
4450 Clinical Practice in Audiology (1-6) (Same as Audiology and Speech Pathology 4450).
4460 Clinical Practice in Audiology (1-6) (Same as Audiology and Speech Pathology 4460).
4470 Clinical Practice in Audiology (1-6) (Same as Audiology and Speech Pathology 4470).
4700 Audiology for Educators of the Deaf (4) (Same as Audiology and Speech Pathology 4700).
4720 Audiology II (4) (Same as Audiology and Speech Pathology 4720).
4930 Aural Rehabilitation: Speechreading and Auditory Training (4) (Same as Audiology and Speech Pathology 4930).
4939 Laboratory in Aural Rehabilitation (1) (Same as Audiology and Speech Pathology 4939).

4940 Advanced Aural Rehabilitation (4) (Same as Audiology and Speech Pathology 4940).
5040 Advanced Clinical Practice in Audiology (1-6)
5380 Cerebral Palsy (3)
5390 Cleft Palate (3)
5540 Seminar in Language Pathology (3)

REHABILITATION COUNSELING
5100 Orientation to Rehabilitation (3)
5110 Medical Aspects of Rehabilitation Counseling (3)
5120 Psycho-Social Aspects of Disability (3)
5130-40 Seminar in Rehabilitation (3, 3)
5150-60 Internship in Rehabilitation (9, 9)
5170 Systematic Human Relations Training I (3)
5180 Systematic Human Relations Training II (3)

GENERAL COURSES
3333 Education of the Exceptional Child (3) Principles, characteristics, and special needs; local and state programs for diagnosis and care; educational provisions in regular or special classes; home teaching; social and vocational guidance.
3520 Language-Speech Handicapped Child in the Classroom (3) Recognizing and understanding speech problems; observing normal and defective speech development in children; incorporating speech improvement activities into the curriculum. For students not majoring in speech and hearing.
4350-60-70 Problems in the Education of Exceptional Children (3, 3, 3) Prereq: Consent of instructor.

4740 Diagnostic and Remedial Approaches in Special Education and Rehabilitation (3) Critical examination of specialized tests and methods employed in measurement of educational needs of children and adults who are mentally retarded, learning disabled, multiple handicapped or physically handicapped.
5000 Thesis
5002 Non-Thesis Graduation Completion (3)
5260 Education of Gifted Children (3)
5400 Assessment and Remediation of Learning Disabilities (3)
5401 Prescriptive Teaching for Children with Learning Disabilities (3)
5402 The Exceptional Child in the Regular Classroom (3)
5403 Resource Teachers for the Handicapped (3)
5450-60-70 Experience in Teaching and Supervision of Exceptional Children (1-6, 1-4, 1-6)
5510-20-30 Administrative Practice or Problems in Institutional Care of Children (3, 3, 3)
5550-60-70 Problems in the Education of Exceptional Children (3, 3, 3)
5620 Counseling Parents of Exceptional Children (3)
5630 Psychology of the Exceptional Child (3)
5830 Seminar: Issues and Theories in the Education of the Exceptional Child (3)
5910-20-30 Problems in Lieu of Thesis (3, 3, 3)
5970 Juvenile Delinquency and the School (3)

Vocational-Technical Education (888)

Professors: R.J. Woodin (Emeritus), Ph.D. Ohio State; G.R. Rice, Ph.D. Ohio State.
Associate Professors: M.D. Miller (Head), Ed.D. Oregon State; W.A. Cameron, Ph.D. Ohio State; R.R. Hanson, Ph.D. Purdue; E.R. Smith, Ph.D. Ohio.

3000 Introduction to Vocational Education (1) Introductory and exploratory experiences concerned with teaching careers in all areas of vocational education. Includes visitation within a vocational setting.

4750 Audiovisual Methods and Techniques (3) (Same as Curriculum and Instruction 4750 and Library and Information Science 4750).

GRADUATE
5002 Non-Thesis Graduation Completion (3)
5010 History and Organization of Vocational-Technical Education (3)
5020 Competency Based Vocational Education (3)
5040 Guidance and Pupil Personnel Services in Education (3)
5180-90-5200 Educational Specialist Research and Thesis (3, 3, 3)
5250 Issues and Trends in Vocational-Technical Education (3)
5260 Continuing Education in Vocational-Technical Education (3)
5270 Placement, Follow-up, and Evaluation Procedures in Occupational Education (3)
5300 Occupational Program Development for Disadvantaged Persons (3)
5310 Supervision of Vocational-Technical Education (3)
5850-60-70 Problems in Vocational-Technical Education (1-6, 1-6, 1-6)
6000 Doctoral Research and Dissertation
6040 Seminar in Vocational-Technical Education (1, 1, 1)
6210 Curriculum Planning in Vocational-Technical Education (3)
6220 Program Planning and Development in Vocational-Technical Education (3)
6230 Evaluation of Vocational-Technical Education Programs (3)
6310 Administration of Vocational-Technical Education (3)
6411-12-13 Internship in Vocational-Technical Education (3, 3, 3)

Agricultural Education (056)

Associate Professors: D.G. Craig, Ed.D. Cornell; J.D. Todd (Chairman), Ed.D. Illinois.

3450 Agricultural Experience and Future Farmers of America Programs (3) Prereq: consent of instructor.
3460 Methods in Teaching Agriculture (3) Prereq: consent of instructor.
4110 Student Teaching in Distributive Education (9)
Full-time, supervised experience in classroom teaching, coordination, club work, and adult education. Prereq: 4310, 4320; Education 3030; Educational Psychology 3810; 4140 or equivalent. Undergraduate credit only. Satisfactory-No Credit.

4120 School and Community Relationships for the Teacher Coordinator (6) Content dependent upon teaching assignment; human relations, ethics, and communication. Must be taken with 4110. Undergraduate credit only. Satisfactory-No Credit.

4130 Areas of Distribution (3) Marketing, product or service technology, social skills, basis skills, and distribution as these areas affect the distributive education curriculum in secondary and post-secondary programs.

4140 Supervised Distributive Experience (3) Minimum 200 hours experience in approved distributive business; concurrent analytic project.

4310 Organization and Operation of Distributive Education Programs (3) Background and development needs, federal and state legislation; curriculum implications; establishing, evaluating, reporting, and improving the programs.

4320 Methods and Materials in Distributive Education (3) Prereq: 4310 or permission of instructor.

4330 Coordination Techniques in Distributive Education (3) Selecting training agencies; job analysis; selecting and briefing the training supervisors; advisory committees; adult education and other community services. Prereq: 4310 and 4320.

4510-20-30 Problems in Distributive Education (3, 3, 3) Selected research problems in teaching and coordinating distributive education programs.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5130 Furthering Good Human Relationships in the Classroom (3)

5220 Evaluation in Home Economics (3)

5310 The Problem Method of Teaching (3)

5440 Curriculum Development and Implementation in Family Relationships Instruction (3)

5530 The Teaching of Home Economics in College (3)

5530 Organization of the Homemaking Curriculum in Secondary Schools (3)

5610 Supervision of Home Economics in the Public Schools (3)
3010 Related Science, Mathematics, and Technology in Occupations (9) Credit may be earned only through examination. Applicants shall be limited to persons already holding a vocational teaching certificate.

3020 Manipulative Skills in Occupations (9) Credit may be earned only through examination. Applicants shall be limited to persons already holding a vocational teaching certificate.

3030 Knowledge of Related Subjects in Occupations and Personal Qualifications (9) Credit may be earned only through examination. Applicants shall be limited to persons already holding a vocational teaching certificate.

3040-41-42 Physical Testing Technology (3, 3, 3) Skills and techniques involved in radiography, metallurgy, tensile and compression testing, and other destructive and nondestructive testing methods. Undergraduate credit only.

3060-51-52 Welding, Brazing, Cutting, and Related Processes (3, 3, 3) Various types of welding equipment and fundamental techniques of welding. Undergraduate credit only.

3060-61-62 Electronic Technology (3, 3, 3) Basic principles and applications of electronics. Undergraduate credit only.

3080-81-81 Machining of Metals (3, 3, 3) Introduction to machine shop theory and procedures which provide information and practice in using basic machine tools. Undergraduate credit only.

3110 History and Philosophy of Industrial Education (3)

3210-20-30 Part-time Programs in Cooperative Industrial Training (3, 3, 3) Principles of organization, methods, and materials.

3310 Shop Organization and Management (3)

3320-30 Materials and Methods for Teachers of Shop and Related Subjects (3, 3)

3340 School Shop Safety (3)

3610 Development and Utilization of Advisory Committees (3) Philosophy and rationale for use of craft advisory committees. Their selection, organization, implementation and utilization.

3612 Automotive Mechanics (3) Advanced laboratory experience in tune-up, overhaul, transmission, and the suspension system. Prereq: 1610.

3621 Industrial Graphics (3) Auxiliary views, sections, conventional practices, fasteners, dimensions, working drawings and machine drafting. Prereq: 1620.

3632 Industrial Electricity and Equipment Control (3) Involves construction and application of industrial electric equipment both single and polyphase. Production, use and control of electric current. Emphasis placed on circuit tracing, installation, maintenance, and trouble connecting industrial equipment. Prereq: 1630.

3640 Advanced General Metals (3) Provides experiences in areas of hot and cold forming of metals, molding and metal finishing, tool grinding, heat treatment, fabrication and precision measurement. Prereq: 2641.

3651 Plastic Processing (3) Plastics production equipment and related product design and processing of plastics. Prereq: 2652 and 1661.

3662 Construction Methods and Materials (3) Materials and methods of construction used in residential construction, including location and evacuation, foundry, framing, roofing, interior and exterior finishing. Acceptable practices in assembly. Prereq: 1661.

4073-74-75 Tool and Machine Design (3, 3, 3) Tool and machine design, calculations, design systems, and designing procedures. Undergraduate credit only.

4090-91 Numerical Control (3, 3) Tooling, manual programming, automatic programming, programming language and use of automatic programmer as a computer. Undergraduate credit only.

4110 Foremanship Training by the Conference Method (3)

4120 Job Analysis (3, 3) Principles, practice, instructional methods.

4210 Methods of Teaching Shop and Related Subjects (3) Undergraduate credit only.

4220 Vocational Technical Laboratory Equipment Maintenance (3) Understanding of preventive maintenance, maintenance and calibration of instruments and power equipment used in industrial education shops.

4310-20 Curriculum Building in Trade and Industrial Subjects (3, 3) Arranging course material in trade subjects, following up results of job analyses, preparing checking sheets and individual job sheets in both trade and related subjects. Prereq or coreq: 4120.

4350-60-70 Problems in Industrial Education (3, 3, 3)

4410 Directed Teaching (6) Observation of all types of trade and industrial classes; preparation of lesson plans and supplementary materials. Prereq: Senior standing in industrial education. Prereq. or parallel: 4210. 1 hr and 5 periods. Undergraduate credit only. Satisfactory-No Credit.

4420 Directed Teaching (6) Guided observation and teaching in trade, industrial, and/or technical programs in secondary, area, adult, post secondary, and junior college industrial vocational and technical curricula. Undergraduate credit only. Satisfactory-No Credit.

4510-11-12 Seminar in Industrial Education (3, 3, 3) Educational innovations, current events, problems, and other topics associated with the field of industrial education.

4520-21-22 New Developments in Industrial Education (3, 3, 3) Developments, pressing problems, and recent trends in field of industrial education as presented by a coordinating instructor in conjunction with knowledgeable resource personnel.

4621 Special Topics in Drafting (3) Industrial practices in specialized areas of drafting selected for the individual student. Prereq: 6 hrs drafting.


4670 Manufacturing Processes (3) The manufacturing processes of industry and their relationship to careers. Prereq: 2621, 2641, 2660, 3651, or permission of instructor.

4671 Materials and Processes (3) Organic and inorganic materials and processes used to produce finished products. Content, curriculum and techniques of laboratory operation. Prereq: permission of instructor.

4682 Power and Energy (3) Development, control, transmission, conversion, interrelationship of power sources, content, curriculum, and techniques of laboratory operation. Prereq: permission of instructor.

4690 Visual Communications in Industrial Arts (3) Methods of developing and transmitting ideas and information as related to industry and society. Content, curriculum and techniques of laboratory operation. Prereq: permission of instructor.

4691 Course Construction in Industrial Arts (3) Advanced work in the selection and arrangement of course content. Emphasis upon instructional objectives, project selection and informational arrangements and evaluation. Prereq: permission of instructor.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)
5110-20-30 Administration and Supervision of Industrial Education (3, 3, 3)
5140 Organization and Operation of Area Vocational-Technical Schools (3)
5210-20-30 Special Problems in Industrial Education (3, 3, 3)
5310 Methods of Research in Industrial Education (3)
5410 Improving Teachers in Service (3)
5420 Advisory Committees and Apprentice Training (3)
5430 Vocational School Administration and Management (3)
5440 Advanced Methods of Teaching Skills and Technical Information (3)
5510-20-30 Seminar in Industrial Technical Education (3, 3, 3)
5540 New Developments in Industrial Technical Education (3)