Richard Wisniewski, Dean
C. Glennon Rowell, Associate Dean for
Graduate Studies
Thomas W. George, Associate Dean for
Undergraduate Studies

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 six departments and its School of Health, Physical Education, and Recreation. In addition to teacher education programs, the College of Education has several non-teacher education programs. These programs include Dance, Industrial Education: Industrial Training, Physical Fitness, Public Health, Recreation, Sports Communication and Sports Management.

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 of 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 and Claxton Addition contain many modern and functional facilities for the professional education of teachers including classrooms, laboratories, seminar rooms, faculty and administrative offices, the Instructional Services Center, the Reading Center, the Curriculum Laboratory, the Teaching Simulation Laboratory, and the Bureau of Educational Research and Service.

Teacher Placement Service
The College of Education, cooperating with the University Placement Service, assists qualified students and alumni in securing positions. School and college administrators are cordially invited to make full use of these services in their efforts to employ competent personnel.

General Information
Association with the College

Non-Teacher Education Programs
Association with the College of Education is granted to applicants possessing both of the following:
(1) A minimum of 2.5 high school or post-secondary grade point average (based on a minimum of 45 quarter hours), and
(2) A minimum ACT composite score of 17 or passing scores on the Pre-Professional Skills Tests. (Applicants to Industrial Education, Option 3: Concentration in Training and Supervision are exempted from this particular portion of the association requirement.

Students desiring information about the College of Education's non-Teacher Education programs (Dance, Sports Management, Sports Communication, Physical Fitness Specialist, Movement Sciences, Public Health, Recreation, Distributive Training Option, and Training/Supervision in Industrial Education) should contact the specific program area coordinator or chairperson for complete details.

Teacher Education Programs
Association with the College's teacher education programs is required of all undergraduate and graduate students enrolled in programs leading to teacher certification.

The process of progression into the College's teacher education programs begins at the time of a student's initial enrollment at UTK, whether the student enters as a freshman or undergraduate transfer. Students will not be granted association before the completion of a minimum of 50 semester or 75 quarter hours of academic course work (i.e., transfer hours may be included).

The following requirements apply to students seeking association:

1. Academic Achievement The applicant will be required to have earned a minimum 2.5 GPA in General Education courses. This classification of courses should not typically include Education courses nor should it include upper division Specific Teaching Field (major) courses. In addition, the applicant will be required to have earned at least a "C" in all Professional Education courses. Professional Education courses in which less than "C" grades were earned must be repeated.

GPA computation will be made at the time other Teacher Education requirements are completed and upon successful completion of at least 50 semester or 75 quarter hours of academic work.

If this standard is not met: The applicant will improve his/her academic record through
either repeating previously taken courses or
enrolling in additional courses.

2. Standard Results The applicant
will attain the minimum scores, as
specified by the State Board of Education,
on the Pre-Professional Skills Tests:
If this standard is not met: The applicant
will not be accepted into the program.

3. Speech and Hearing Evaluations The applicant
will perform within normal limits on
speech and hearing evaluations.
If this standard is not met: The applicant
will participate in therapy, as specified by
and provided through the University’s
Speech and Hearing Center.

4. Socio-Emotional Assessment (16PF)
The applicant will perform within normal
limits on a standardized personality instru-
ment.
If this standard is not met: The applicant
will participate in therapy, as specified by
and provided through the University’s
Speech and Hearing Center.

5. Conduct Record Each applicant’s name
will be submitted to the University’s Conduct
Office for review. Candidates who have
established records of inappropriate conduct
will be reviewed by the College’s Admissions
and Retention Committee.
If this standard is not met: The candidate’s
disposition will be determined by the
Teacher Education Standards Committee.

Upon the successful completion of the
previously cited general progression require-
ments (i.e., 1-5), applicants will be scheduled for
an interview with the association board
responsible for screening applicants to each of
the College’s specific teaching fields.
Association boards are composed of, but
are not limited to, the following individuals:
(1) The applicant’s advisor and/or faculty
member from the specific program to
which the applicant is seeking admission
(e.g., Mathematics Education, Elementary
Education),
(2) A currently associated, advanced student
in the program,
(3) A school-based professional from the
specific field, and
(4) A subject-matter specialist from the
larger University, if the applicant is inter-
ested in entering a Secondary Education
program (e.g., English Department repre-
sentative if the applicant is an English
Education applicant).

Applicants will be interviewed individually
by a board; particular attention will be given to
the following:
1. Academic Achievement In addition to
applicants’ achievement in General Educa-
tion courses, applicants will be expected to
have earned at least a 2.5 GPA in those
courses which are considered predictors of
success in specific teaching field courses
(e.g., English courses for English Education
applicants). Furthermore, the applicant will
be expected to have earned a minimum
grade of “C” in all Professional Education
courses. Professional Education courses in
which grades of “D” or “F” were earned
must be repeated.
If this standard is not met: The applicant
will improve his/her academic record through
either repeating previously taken courses or
by enrolling in additional courses until this
standard is met.

2. Communication Skills
(a) The applicant’s oral grammar and
ability to articulate ideas will be assessed
throughout the interview.
If this standard is not met: The applicant
will participate in remedial activities which
are provided through the University’s Writing
Lab, Speech and Hearing Center, and/or
Speech and Drama Department.
(b) The applicant's expression of his or her
own writing will be assessed through
a written (1) autobiography and (2) explana-
tion as to the applicant’s interest in the
particular program of his or her choice.
If this standard is not met: The applicant
will participate in the University’s Writing
Lab.

Applicants who are denied association
with the specific teaching field of their choice
are eligible to seek admission to another
College of Education teacher specific teach-
ing fields.

Applicants who become associated, thereby,
become eligible to enroll in upper
division College of Education courses.

1. Academic Achievement In addition to
applicants’ achievement in General Educa-
tion courses, applicants will be expected to
have earned at least a 2.5 GPA in those
courses which are considered predictors of
success in specific teaching field courses
(e.g., English courses for English Education
applicants). Furthermore, the applicant will
be expected to have earned a minimum
grade of “C” in all Professional Education
courses. Professional Education courses in
which grades of “D” or “F” were earned
must be repeated.
If this standard is not met: The applicant
will improve his/her academic record through
either repeating previously taken courses or
by enrolling in additional courses until this
standard is met.

2. Communication Skills
(a) The applicant’s oral grammar and
Course Substitutions

It is sometimes necessary and advisable for students to substitute other courses for those required in a particular curriculum. The following rules apply:

(a) A student who successfully completes courses that are equivalent to those listed for another major or minor may substitute them at the discretion of the college.

(b) A student enrolled in a program leading to certification may substitute courses when approved by the College of Education.

(c) At least three quarter hours in teaching courses are required in the student's major.

(d) At least one three quarter hour course is required to complete the program.

The successful completion of the following courses is required:

- Communications Skills, and Professional Core Battery (i.e., General Knowledge).
- Minimums on the entire NTE: 1825; Music 1210 or 1220; Elective from the Humanities (8 hours) ; Art 1705, 1815 or 1825; Music 1210 or 1220; Elective from: Speech and Theatre (6 hours); Art 1705, 1815 or 1825; Music 1210 or 1220; Elective from the following: Philosophy 1510 or 1511 or 1521.
II. Curricula for Secondary Education (7-12)

GENERAL EDUCATION .................. 73-74 hours
Communications (13-14 hours)
English 1010 or 1011; 1020; 1031 or 1032 or 1033 (9 hours may be required of some students); Speech 1211.

Health and Physical Education (9 hours)
Physical Education must be represented plus Nutrition 111 or Public Health 3330 or School Health 1110 or 3210 or 3420 or 3610.

Humanities (16 hours)
English 2510, 2520, 2531, 2532, 2533, 2560, 2570, 2580 (4 hours); Anthropology 2530; Religious Studies 2110, 2120, 2310, 2320, 3021, 3370, or 3390 (4 hours); Philosophy 2410.

Mathematics (3 or 4 hours)

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

Psychology (8 hours)

Social Studies (12 hours)
Economics 2110 or 2520; Geography 2110 or 2120 in sequence; History 1510, 1520, 1610, 1620, 2015, 2510, 2520, 3050, 3051, 3201, 3202 (any one of these).

CORE PROFESSIONAL EDUCATION .......................... 20 hours
Educ. C & I 3211, 3212, 3312, 3322, 3323, 3411; Educ. Psych. 3002, 3003; Special Ed. 3333.

SPECIALIZED PROFESSIONAL EDUCATION .................. 34 hours
Six hours of appropriate methods courses (see below); Educ. C & I 3521-22-23, 4100, 4710-20; three hours of electives selected from the College of Education; Educ. C & I 4304 (plus Educ. C & I 4300 for those certifying in English).

English ................. Educ. C & I 3357 and 3658
Foreign Language ........ Educ. C & I 3622 and 3653
Mathematics .............. Educ. C & I 3751 and 3752
Science .................. Educ. C & I 3654 and 4654
Social Studies ............ Educ. C & I 3653 and 3853

NOTE: An appropriate special methods course must be taken in each subject and/or area in which endorsement is sought, and admission to Teacher Education Program is required for each.

TEACHING SUBJECT AREAS AND ELECTIVES .............. 72 hours
See outline of the programs below.

TOTAL MINIMUM REQUIRED: 199-200 hours

PROGRAMS 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.

A. English Education
1. English with cognate or minor a. 45 quarter hours in English, including three in English language (3330, 3340, 4430, 4440, 4450). Nine of the 45 hours may be in speech provided the student is not taking a cognate in speech.
b. 27 hours in Speech, Theatre and Broadcasting. At least three courses must be taken in each of two of these areas.
c. Students enrolled in this program must take two English methods courses: Education C & I 3657* and 3658*.

B. Foreign Language Education
1. Foreign Language Area
a. 36 quarter hours in one language with no less than 18 quarter hours of upper-division courses.
b. 27 quarter hours in another language with no less than 18 quarter hours of upper-division courses.
c. 9 hours of general and applied linguistics.

2. Foreign Language major and cognate or minor
a. 45 quarter hours (9 less quarter hours if not taking a cognate in speech).

*Requires admission to Teacher Education Program.

C. Mathematics Education
1. Area Majors in Mathematics
a. Mathematics and Physical Sciences (75 hours)
(1) Mathematics (27 hours) must include at least a one-year sequence in calculus or analytic geometry and calculus and at least 12 quarter hours in courses numbered 3050 or above with at least one course in algebra and one in geometry.

(2) Physical Sciences—12 hours in each of the following: Chemistry, geology, physics.

(3) Electives—12 additional hours in physical science and/or mathematics. Endorsements: Mathematics and Physical Science, General Science.

b. Mathematics and Related Sciences (72 hours)
(1) Mathematics (36 hours)—must include at least a one-year sequence in calculus or analytic geometry and calculus and at least 12 hours in courses numbered 3050 or above with at least one course in algebra and one in geometry.

(2) Related Sciences—12 hours in physics and 12 hours in each of two of the following subjects: astronomy, biology, botany, chemistry, geology, microbiology, zoology. Endorsements: Mathematics, General Science.

c. Mathematics and Computer Sciences (72 hours)
(1) Mathematics (36 hours)—must include at least a one-year sequence in calculus or analytic geometry and calculus and at least 12 hours in courses numbered 3050 or above with at least one course in algebra and one in geometry.

(2) Computer Science and Physics—24 hours in computer science and 12 hours in physics. Endorsements: Mathematics.

D. Psychology Education
1. A concentration and endorsement in psychology shall require a minimum of 30 quarter hours—12 hours upper division distributed as follows:

Core .......................... 16 hours
Psychology 2500 ....................... 4
Psychology 3120 ....................... 4
Psychology 3150 ....................... 4
Psychology 3210 ....................... 4
Electives ........................... 14 hours selected from: Psychology 2520, 2530, 2540, 3125, 3210, 3220, 3510, 3430, 3560, 4230, 4510, 4520, 4560, 4900; Psychology or Ed. Psych. 4640; Ed. Psych. 3110, 4110, 4300, 4890, 4880, 4890.

2. Two cognates (18-27 hours for a total of
E. Science Education

1. Area Majors in Science
   a. Biological science (72 hours minimum)
      Biology 1210-20-30 or Botany 1110-20-40 (12 hours)
      Biology 3110-20-30 (12 hours)
      Microbiology 2010 (4 hours)
      Chemistry (excluding 1410 series) (12 hours)
      Science electives—(32 hours minimum).
      b. Earth and Environmental Sciences (72 hours minimum)
      Approved electives selected from one or more of the following:
      biological sciences—biochemistry, botany, microbiology, zoology; physical sciences—chemistry.
      Minimum requirement in biological science consists of 56 hours (12 hours chemistry required, excluding 1410 series).
      Endorsements: Biology (Life Science) and General Science2.
   b. Earth and Environmental Sciences (72 hours minimum)
      Microbiology 2010 (4 hours)
      Chemistry (excluding 1410 series) (12 hours)
      Science electives—(32 hours minimum).
   c. Natural Science (72 hours minimum)
      Basic requirement of 12 hours in each of the following subjects:
      Biology 1210-20-30 or Botany 1110-20-40, Chemistry (excluding 1410 series), Geology (excluding Geology 1000), Physics (excluding 1410 series), Mathematics (excluding 1020, 2020 and 2110-20-30). Credit for only 12 math hours accepted in the program. Approved science electives—24 hours minimum, including a total of six quaters of course work in one subject area other than math. Biology is considered as one subject for high school endorsement. Endorsements: General Science2 (Possible endorsements: Biology, Chemistry, and Physics).

2. Subject Majors in Science
   The only single subject majors in science leading to teacher certification are chemistry and physics. Majors 45 quarter hours; cognates 27 quarter hours.
   3. Endorsements: Major Subject

F. Social Science Education

Program I

1. Broad fields Social Studies (Major 72 hours)
   Certification includes economics, geography, history, political science and sociology.
   a. 28 quarter hours in history, including 1510-20 and 2510-20, 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. 8 quarter hours in economics, including 2510-20 and an elective.
   e. 7-8 additional quarter hours in the above-listed or related fields.

Program II

Specific subject major (45 hours plus cognates)

Cognate: A cognate is defined as 27 quarter hours in a single subject area, i.e., biology, history, French, psychology, speech, etc. A cognate does not meet certification requirements in all cases.

Minor: A minor is a subject area represented by a specified set of hours and/or courses. Since minors are defined by the offering department interested students are referred to those sections of this catalog for further details.

III. Art and Music Education

A. Art Education
   GENERAL EDUCATION ................................ 75-81 hours
   Communications (16-17 hours)
      English 1010, 1020, and 1031 or 1032 or 1033 plus any speech course (13 hours).
      Journalism 2210 or Speech 1211 or Communications 1110 (3-4 hours).
   Health and Physical Education (9 hours)
      School Health 3510 (3 hours) plus Physical Ed. activities courses (6 hours).
   Humanities (12 hours)
      Any two English or American literature courses.
      Philosophy 1510 or any Classics or Religious Studies course.
   Mathematics (3 hours)
      Mathematics 2110 or any other Math course.
   Natural Science (12 hours)
      Any combination of courses from the biological or physical sciences (Astronomy, Biology, Botany, Chemistry, Geology, Physics, or Zoology).
   Psychology (8 hours)
      Psychology 2500, Psychology 3650 (3 hours); Educ. Psych. 2001.
   Economics, Sociology, and Anthropology 3390, Political Studies 3390, or University Studies 3110-20 (3 hours).

B. Music Education
   GENERAL EDUCATION .................................. 73-74 hours
   Communications (13 hours)
      English 1010-20, and 1031 or 1032 or 1033; Speech 1211, 1221, 2021, 2311, 2331, or 3021 (4 hours).
   Health and Physical Education (9 hours)
      School Health 3510; Physical Education activities courses (6 hours).
   Humanities (14 hours)
   Mathematics (3 hours)
      Any mathematics course.

   Natural Science (12 hours)
      Physics 1810, Chemistry, Physics, Biology, Botany, Geology, or Astronomy (8 hours).
      Psychology (7-8 hours)
      Psychology 2500, 3650 (3 hours); Educ. Psych. 2001.

   Social Studies (15 hours)
      Anthropology, Political Science, or Sociology (4 hours). Economics, Sociology, and Geography (4 hours). Geography 3490, Political Science 3390, or University Studies 3110-20 (3 hours).

   CORE PROFESSIONAL EDUCATION ................. 20 hours
      Ed. & C I 2011, 3021, 3031, 3032, 3033, 4011; Educ. Psych. 3002, 3003; Special Ed. 3333.
   SPECIALIZED PROFESSIONAL EDUCATION ...... 19 hours
      Edu. C & I 4304, 4710-20; Music Ed. 4100.

   TEACHING AREAS AND ELECTIVES .................. 85-113 hours

   Concentration in Vocal Music (Voice Principal) (85 hours)
      Music Education 1010-20, 2110, 2421, 2423, 2433, 3130, 3150, 4420, 4510, Music 1111-21-31, 1113-23-33, 2111-21-31, 2113-23-33, 2340; Voice (22 hours); Required ensemble (11 hours) plus piano proficiency.

   Concentration in Vocal Music (Piano or Organ Principal) (91 hours)
      Music Education 1010-20, 2110, 2421, 2423, 2433, 3130, 3150, 4420, 4510, Music 1111-21-31, 1113-23-33, 2111-21-31, 2113-23-33, Piano or Organ (22 hours); Voice (6 hours); Required ensemble 11 hours.

   Concentration in Instrumental Music (110-113 hours)
      a. 35 Music Education 1010-20, 2110, 2411-12-13, 2421-22-23, 2431-32-33, 3150, 3410, 4420, 4430, 4511 (1-1.1).
      Music 1111-21-31; 1113-23-33, 2111-21-31; 2113-23-33, 2340; 3112; 3122 or 4124; Principal instrument (22 hours); Secondary instrument (6 hours); Piano proficiency; Required ensemble (11 hours).
      b. Music Education 4460 is required for all students whose principal instrument is wind or percussion.

   TOTAL MINIMUM REQUIRED ........................................ 197-226 hours

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1. Only one freshman-level biological science series permitted.
2. Plant and animal science courses required.
3. Certification in any single area.
GENERAL REGULATIONS FOR ALL MUSIC EDUCATION STUDENTS

A. 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 advisor 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; Campus Band; University Marching Band; or University Orchestra. Vocal Major: Concert Choir; University Chorus; Chamber Singers.

B. Transfer students must take proficiency examinations in applied music, music theory, sight-singing and dictation prior to registration in music education curricula.

IV. Health, Physical Education, Recreation, and Safety

A. Major in Physical Education

1. Teaching Track

a. Elementary Physical Education (K-8)

GENERAL EDUCATION

- 87 to 96 hours
- Communication Arts (13 hours)
  - English 1010-20, and 1031 or 1032 or 1033; Speech 2311 or 2331.
- Mathematical Skills (4 hours)
  - Math 1555 or 1540.
- Nature, Evolution, and Use of Language (3-4 hours)
  - English 2510, 2520, 2531, 2532, 2533, 2605, 2651, 2652, or 4650.
- Professional Physical Education (K-8)

Classes 2010, 2020, or 2030; Human Services 2690 or 3300; Philosophy 1510, 1511, 1521, 1611, 1621, or 1810; Political Science 3801, 3802, 3603, or 3804; Religious Studies 2210, 2310, 2320, 3021, 3370, 3605, or 3606; Women's Studies 3430 or 3435.

Fine Arts (6-8 hours) Application
- Art 1105, 1106.
- Music 1416; Physical Educ. 2711, 2712, 2713, 2728, 2747, 2748, 2749, 2750, 2778, 2779, 3010, 3020, 3030, 3040, 3041, 3070, 3075, or 4000;
  - Speech & Theatre 2031, 2651, 2651.
- Study Abroad: Art 2320 or 2321; Classics 2320 or 2330; Music 1000, 1210, 1220, or 1230; Philosophy 2410; Physical Educ. 2070, 3060, 3061, or 3062; Theatre 1310.

Physical Health (12 hours)
- Physical Educ. 1042, 1062, 2042, and any aquatics course (2701, 2702, 2703, 2771, 2772, 2773, 2774, or 2775); Health Ed. 3210.
- Mental Health (3-4 hours)
  - Educ. Psych. 2220 or 4130; Psych. 2500, 2520, 2530, or 3650; Health Ed. 3000.

Human Development and Behavior (4 hours)

PROFESSIONAL PHYSICAL EDUCATION

- 60 hours
- Physical Education 1000, 1052, 1500, 2012, 2600(2), 3320, 3350, 3460, 3470, 3480, 3550, 3560, 3600, 3720, 4110, 4140, 4170, 4200, 4220, 4230, 4500, 4670.
- Choose from 1022 or 2022 and select one from 1032, 2072, 2752, or 2756.

CORE PROFESSIONAL EDUCATION
- 20 hours
  - Educ. C & I 4304, 4810, and 4820; Physical Ed. 4100.

GENERAL ELECTIVES
- 5-14 hours

TOTAL MINIMUM REQUIRED
- 200 hours

Secondary Physical Education Endorsement for Physical Education Majors in the Elementary Physical Education Teaching Track. (21 hours)

(Open only to Physical Education major students in the Elementary Physical Education Teaching Track.)
- Physical Educ. 1022 or 2022, 3023, 2042, 2052, 2500, 2420, and 4420, and any two of the following: 4360, 4365, 4370, 4375, 4380, 4385, 4390, and 4395.

b. Secondary Physical Education (7-12)

GENERAL EDUCATION
- 87 to 96 hours

Same requirements listed under Elementary Physical Education (K-8)

PROFESSIONAL PHYSICAL EDUCATION
- 59 hours

Physical Ed. 1000, 1032, 1052, 1500, 2012, 2500, 2600, 3320, 3350, 3500, 3600, 3720, 4110, 4140, 4170, 4200, 4220, 4230, 4420.
- Choose one from 1022, 2022, 2082, or 2072; choose three from 4360, 4365, 4370, 4375, 4385, 4386, 4390, and 4395.

CORE PROFESSIONAL EDUCATION
- 20 hours
  - Educ. C & I 4304, 4305, 4710, and 4720; Physical Ed. 4100.

GENERAL ELECTIVES
- 6-15 hours

TOTAL MINIMUM REQUIRED
- 200 hours

Elementary Physical Education Endorsement for Physical Education Majors in the Secondary Physical Education Track. (22 hours)

(Open only to Physical Education Major students in the Secondary Physical Education Teaching Track.)

Any aquatics course, Physical Educ. 3350, 3470, 3480, 3570, 4500, and 4670.

2. Physical Fitness Specialist Track

GENERAL EDUCATION
- 85 to 93 hours

English 1010, 1020 and 1031 or 1032: Speech 2311 or 2331; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: art, music, philosophy, religious studies, English literature, foreign languages (any level), and history (3000 and 4000-level only); Social Science electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, economics, geography, history, political science, and sociology; Chemistry 1110-20 or 1510-20-30; Zoology 2920, 2930 and 4940; Math 1540, 1814, or 1540 other than 1810 and 2012; Physics 1450; Psychology 2500; School Health 3210; Physical Educ. 1022 or 2022, 1042, 1052, and any course in tennis, badminton, racquetball, paddleball or handball.

PHYSICAL EDUCATION CORE
- 22 hours
  - Physical Educ. 1000, 2600, 3210, 3320, 3550, 3720, 4170, and 4420.

PROFESSIONAL EDUCATION
- 38 hours

Health 4412 and 4420; Nutrition and Food Sciences 3120 and 4160; Recreation 3880; and any one of the following: Accounting 2110, Advertising 3000, Communications 1110, Computer Science 1410, Economics 2510, Finance 3120, Management 3010 and 3480, Office Admin. 4310 or 4320, Marketing 4140.

PROFESSIONAL PHYSICAL EDUCATION
- 33 hours

Any aquatics course, Physical Educ. 2022, 2527, 2758, 3040 or 2720, 3250, 3650, 4110, 4115, 4260, 4360, and 4420.

GENERAL ELECTIVES
- 16 to 24 hours

Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses (which must be different from the Physical Educ. Major activity courses); also excluded are Physical Educ. 2730 and 2792.

TOTAL MINIMUM REQUIRED
- 200 hours

3. Movement Sciences Track

a. Exercise Physiology Area of Concentration

GENERAL EDUCATION
- 83 to 91 hours

English 1010 and 1020 and 1033; Speech 2311 or 2331; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropo-
pology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history (3000 and 4000-level only); Social Science electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, economics, geography, history, political science, and sociology; Chemistry 1110-20 or 1510-20; Zoology 2920, 2930 and 4940; Math 1540 or 1840; Psychology 2500; Physics 1540; and any five 1000 and 2000-level Physical Educ. Major activities.

PHYSICAL EDUCATION CORE ....... 22 hours Physical Educ. 1000, 2600, 3210, 3320, 3550, 3720, 4170, and 4220.
PROFESSIONAL EDUCATION ........... 10 hours Psychology 3150, Computer Science 4310; English 4140.
PROFESSIONAL PHYSICAL EDUCATION ............................................. 16 hours Any five 1000 and 2000-level Physical Educ. Major activities courses; Physical Educ. 3580 and 4330.

SPECIALIZED PROFESSIONAL EDUCATION ........................................... 33 hours Psychology 2520, 2530 and 3119; at least one of the following area courses and lab: Psychology 3120-29, 3120-19, 4230-39, and 4710-19; and a minimum of 16 hours selected from the above and/or the following: Psychology 2540, 3559, 4650, 4670, 4850, 4870, and 4880.
SPECIALIZED PROFESSIONAL PHYSICAL EDUCATION ................................ 12 hours Physical Educ. 3600, 4140, 4340, and 4350.

GENERAL ELECTIVES ............... 20 to 28 hours
Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses (which must be different from the Physical Educ. Major activity courses); also excluded are Physical Educ. 2730, 2734, 2756, 2757, 2792, and 2794.

TOTAL MINIMUM REQUIRED ........ 200 hours

c. Kinesiology/Biomechanics Area of Concentration
GENERAL EDUCATION ............... 79 to 87 hours English 1010 and 1020 and 1033; Speech 2311 or 2331; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history (3000 and 4000-level only); Social Science electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, economics, geography, history, political science, and sociology; Chemistry 1110-20 or 1510-20; Zoology 2920, 2930 and 4940; Math 1540 or 1840; Psychology 2500; Physics 1540; and any five 1000 and 2000-level Physical Educ. Major activities.

PHYSICAL EDUCATION CORE ....... 22 hours Physical Educ. 1000, 2600, 3210, 3320, 3550, 3720, 4170, and 4220.

PROFESSIONAL EDUCATION ........... 19 hours Psychology 3150, Computer Science 4310; English 4140.

PROFESSIONAL PHYSICAL EDUCATION ............................................. 16 hours Any five 1000 and 2000-level Physical Educ. Major activities courses; Physical Educ. 3580 and 4330.

SPECIALIZED PROFESSIONAL EDUCATION ........................................... 35 hours Psychology 4120, 1330; Math 1850-60; Anthropology 3900; Zoology 2980 and 3060; six hours of electives.
SPECIALIZED PROFESSIONAL PHYSICAL EDUCATION ................................ 9 hours Physical Educ. 3250, 4110, 4115, and 3570.

GENERAL ELECTIVES ............... 21 to 29 hours
Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses (which must be different from the Physical Educ. Major activity courses); also excluded are Physical Educ. 2730, 2734, 2756, 2757, 2792, and 2794.

TOTAL MINIMUM REQUIRED ...... 200 hours

d. Sport Philosophy Area of Concentration

GENERAL EDUCATION ............... 79 to 87 hours English 1010 and 1020 and 1033 or 1033; Speech 2311 or 2331; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history (3000 and 4000-level only); Social Science electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, economics, geography, history, political science, and sociology; Chemistry 1110-20 or 1510-20; Zoology 2920, 2930 and 4940; Math 1540 or 1840; Psychology 2500; Physics 1540; and any five 1000 and 2000-level Physical Educ. Major activities.

PHYSICAL EDUCATION CORE ....... 22 hours Physical Educ. 1000, 2600, 3210, 3320, 3550, 3720, 4170, and 4220.

PROFESSIONAL EDUCATION ........... 10 hours Psychology 3150, Computer Science 4310; English 4140.

PROFESSIONAL PHYSICAL EDUCATION ............................................. 16 hours Any five 1000 and 2000-level Physical Educ. Major activities courses; Physical Educ. 3580 and 4330.

SPECIALIZED PROFESSIONAL EDUCATION ........................................... 40 hours Philosophy 1510, 1520, 2310, 2410, 2510, 2520, 3111, 3121, 3131, and 3141.
SPECIALIZED PROFESSIONAL PHYSICAL EDUCATION ................................ 6 hours Physical Educ. 4330.

GENERAL ELECTIVES ............... 19 to 27 hours
Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses (which must be different from the Physical Educ. Major activity courses); also excluded are Physical Educ. 2730, 2734, 2756, 2757, 2792, and 2794.

TOTAL MINIMUM REQUIRED ...... 200 hours

4. Sports Management Track

GENERAL EDUCATION ............... 81 to 89 hours English 1010 and 1020 and 1033; Speech elective; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history (3000 and 4000-level only); Social Science electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, economics, geography, history, political science, and sociology; Natural Science electives (12 hours including Physics...
College of Education/Health, Physical Education, Recreation, and Safety

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>3110, 3120, 3130, 3140</td>
<td>Anthropology</td>
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<td>3200, 3220, 3240</td>
<td>Economics</td>
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<tr>
<td>3300, 3320, 3340, 3360</td>
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<tr>
<td>3710, 3720, 3730</td>
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<td>3910</td>
<td>History</td>
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<tr>
<td>4120, 4130, 4140</td>
<td>Music</td>
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<tr>
<td>4150, 4160</td>
<td>Psychology</td>
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</table>

**GENERAL ELECTIVES**

- 37 to 46 hours
- Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses.
- 12 to 16 hours selected from the following: Anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history.
- 3000 and 4000-level only.
- Social Science electives (minimum of four courses in three areas and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history.
- Sociology, Psychology, Religious Studies, English literature.

**Mathematics**

- (4 hours)
- Any electives selected from biological and/or physical sciences.

**Physical Education**

- (24 hours)
- Exercise Science 1000, 2000, 3090, 3151.

**DANCE**

- (77 hours)
- Physical Education 1052, 2040-50-60, 2070, 3010-20, 3040-41, 3060-61-62, 3070-75, 3300 or 4300, 3320, 4020, 4050, 4060-80, 4550, 4560.

**CONCENTRATION AREAS**

- 12 hours
- Ballet: Physical Education 4000, 4005, or Modern: Physical Education 3030, 4010.

**ELECTIVES**

- (20 hours)
- TOTAL MINIMUM REQUIRED: 200 hours
- Students are not permitted to audit any dance class. All courses must be taken on letter grade or S/NC basis.

**SPORTS COMMUNICATIONS TRACK**

- (77 to 85 hours)
- English 1010 and 1020; Speech 2311; Math 1540; Psychology 2500; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history. 3000 and 4000-level only.

**GENERAL EDUCATION**

- 77 to 85 hours
- English 1010 and 1020; Speech 2311; Math 1540; Psychology 2500; Humanities electives (minimum of four courses and three areas, 12 to 16 hours) selected from the following: anthropology, art, music, philosophy, religious studies, English literature, foreign languages (any level), and history. 3000 and 4000-level only.

**PHYSICAL EDUCATION CORE**

- 22 hours
- Physical Education 1000, 2000, 3210, 3320, 3550, 3720, 3140, 4170, and 4420.

**PROFESSIONAL EDUCATION**

- 41 hours
- Advertising 3000, Broadcasting 4010, Communications 1110, Journalism 2215, 2220, 3410, 3710, and 4410; and a minimum of 15 hours selected from the following: Broadcasting 2750, 3610, 3650, 3670, 4020, Journalism 2230, 3310, 3910.

**PROFESSIONAL PHYSICAL EDUCATION**

- 27 hours
- Any two Physical Educ. 1000, 2000 or 2000-level activity courses; Physical Educ. 2765, 3000, 3140, 4140, 4280 and six hours from the following: 4260 or 4330, and any two from the following: 3110, 3120, 3130, 3190, or 3200.

**GENERAL ELECTIVES**

- 25 to 33 hours
- Maximum of 6 hours in 1000 and 2000-level Physical Educ. Major activity courses and/or Physical Educ. 2700-level courses (which must be different from the Physical
FREED ELECTIVES: to be added to above requirements to total minimum of 192 hours for the degree.

TOTAL MINIMUM REQUIRED.........192 hours

F. Major in Public Health Education

1. Teacher Certification

GENERAL EDUCATION.............104-105 hours Communications (13 hours) English 1010, 1020, 1033; Speech 2311 or 2361.

Health and Physical Education (11 hours) Health 3000, 3210; Physical education electives.

Humanities (15-16 hours) Anthropology 2530; Art or Music elective (3-4 hours); English (any 4 hours from literature); Philosophy or religious studies elective.

Mathematics (4 hours)

Natural Science (29 hours) Chemistry or physics sequence (12 hours); Biology 1210-20-30 or Zoology 2920-30 and Biology 3110; Microbiology 2910-19.


Social Studies (28 hours) Economics 2510; Political Science 2510 or 2520; History 1510-20 or 2510-20; Sociology 1510-20, 3150.

CORE PROFESSIONAL EDUCATION...........................................20 hours English & I 2011, 3021, 3031, 3032, 3033, 4011; Educ. Psych. 3002, 3003; Special Ed. 3333.

SPECIALIZED PROFESSIONAL EDUCATION................................28 hours Education C & I 4304, 4720, and 4750; Health 3650, 4100, 4500-10-20 (3,3,3); Public Health 4220.

TEACHING AREAS AND ELECTIVES.................................42 hours Public Health required courses 3310, 3320, 3330; Health required courses 3410, 3420, 3620; Health electives (9); Nutrition 1130 or 3120; Safety 3520; General electives (9).

TOTAL MINIMUM REQUIRED.194-195 hours

2. Non-Teacher Certification

GENERAL EDUCATION.............111-112 hours Communications (17 hours) English 1010-20; 1033; Speech 2311 or 2361; Sociology 3320.

Humanities (15-16 hours) Anthropology 2530; Art or Music elective (3-4 hours); English Literature elective; Philosophy 3440 or 3611.

Mathematics (4 hours)

Natural Science (29 hours) Chemistry (12 hours); Zoology 2020-30; Biology 3110; Microbiology 2910-19.

Psychology (10 hours) Psychology 2500, 3210, and 3650 or 3140.

Social Studies (2530) Economics (4 hours); Political Science 2510; History (8 hours); Sociology 1510-20, 3910, 3920, 4560.

PROFESSIONAL HEALTH EDUCATION.................................28 hours

Health 3000, 3210, 3410, 3420, 3620; Public Health 3310, 3320, 3330, 4210.

SPECIALIZED PROFESSIONAL EDUCATION AND ELECTIVES........57 hours Education C & I 4750 or Tech. Adult Ed. 4750; Industrial Ed. 4875; Public Health 4220; Health 3650, 4500-10-20 (5,5,5); Safety 3520; Nutrition 1130 or 3120; General electives (12); Health electives (12).

TOTAL MINIMUM REQUIRED.197-198 hours

G. Major in School Health Education

GENERAL EDUCATION.............104-105 hours Communications (13 hours) English 1010-20-33; Speech 2311.

Health and Physical Education (11 hours) School Health 3000, 3210; Physical education electives.

Humanities (15-16 hours) Anthropology 2530; Art or Music elective (3-4); English Literature elective; Philosophy or Religious Studies elective.

Mathematics (4 hours)

Natural Science (29 hours) Chemistry or physics sequence (12 hours); Biology 1210-20-30 or Zoology 2920-30 and Biology 3110; Microbiology 2910-19.


Social Studies (28 hours) Economics 2510; Political Science 2510 or 2520; History 1510-20 or 2510-20; Sociology 1510-20, 3150.

CORE PROFESSIONAL EDUCATION...........................................20 hours Ed. C & I 2011, 3021, 3031, 3032, 3033, 4011; Educ. Psych. 3002, 3003; Special Ed. 3333.

SPECIALIZED PROFESSIONAL EDUCATION................................28 hours Education C & I 4304, 4720, and 4750; Health 3650, 4100, 4500-10-20 (3,3,3); Public Health 4220.

TEACHING AREAS AND ELECTIVES.................................42 hours Public Health required courses 3310, 3320, 3330; Health required courses 3410, 3420, 3620; Health electives (9); Nutrition 1130 or 3120; Safety 3520; General electives (9).

TOTAL MINIMUM REQUIRED.194-195 hours

V. Special Education*

Concentration in Speech and Hearing

NOTE: Only grades of C and above in the major area of study will be credited for certification and graduation.

GENERAL EDUCATION...........................................12 hours Communications

English 1510-20, Speech 2311.

Health and Physical Education (6 hours) Activities courses recommended plus health and Physical education electives (both areas must be represented).

Humanities (16 hours) English (4 hours from 2000-level literature); electives from two of the following areas: anthropology, art, English (literature), foreign language (above introductory level), history (upper division), Library and Information Science 3510-20-30, music, philosophy, and religious studies.

Mathematics elective (4 hours).

Natural Sciences (16 hours) 8 hours biological science; 8 hours physical science.

Psychology (4 hours) Psychology 2500.

Social Studies (20 hours) History electives (8 hours); 12 hours from three of the following areas: anthropology, economics, geography, political science, sociology.

General Electives (6 hours).

CORE PROFESSIONAL EDUCATION...........................................9 hours Ed. C & I 3010*, 3020*, Special Ed. 4030.

SPECIALIZED PROFESSIONAL EDUCATION...........................................19 hours Psychology 2542 or 2630, Psychology 3560 or 2540 or Ed. Psych. 2430 or 3810, 11-12 hours upper-division psychology or educational psychology including Psychology 3150. (Ed. Psych. 3110, 4800, 4640 recommended.)

SPECIALIZED PROFESSIONAL EDUCATION...........................................20 hours Ed. C & I 2011, 3021, 3031, 3032, 3033, 4011; Educ. Psych. 3002, 3003; Special Ed. 3333.

SPECIALIZED PROFESSIONAL EDUCATION...........................................28 hours Education C & I 4304, 4720, and 4750; Health 3650, 4100, 4500-10-20 (3,3,3).

TEACHING AREAS AND ELECTIVES.................................42 hours Public Health required courses 3310-20-30; Health required courses 3410, 3420, 3620; Health/Public Health electives (9); Safety 3520, Nutrition 1130 or 3120; General electives (9).

TOTAL MINIMUM REQUIRED.191-192 hours

H. Minor in Driver and Traffic Safety Education (28 hours)

REQUIRED COURSES.................................17 hours Safety 3620, 4410, 4420; School Health 3210.

ELECTIVES.................................11 hours at least nine hours selected from: School Health 4120; Educ. C & I 4750; Educ. Psychology and Guidance 2520; School Health 3650.

I. Minor in School Health Education (30 hours)

School Health 3000, 3210, 3410, 3650, 3420; Safety 3520; Public Health 3310, 3320, 4410; Nutrition 1230 or School Health 4420 or School Health 3620.

TOTAL MINIMUM REQUIRED.............181 hours

Total 200 clock hours necessary for State Certification.

Total hours required for endorsement in the above Special Education program appear on curriculum sheets available from the faculty advisor. NOTE: Effective September 1, 1987 the College of Education requires all persons seeking Tennessee Certification in Speech and Hearing to complete the M.A. degree in speech pathology. Students may obtain further information about this require-

*Requires admission to Teacher Education Program. 1 See Speech and Hearing Center staff for assignment each quarter.
VI. Vocational-Technical Education

A. Business Education

GENERAL EDUCATION

COMMUNICATIONS

HUMANITIES

Mathematics (12 hours)

Natural Science (12 hours)

ELECTIVES

TOTA L MINIMUM REQUIRED .187-189 hours

Option 2. Distribution Training Option (Non-Certification)

GENERAL EDUCATION

COMMUNICATIONS

HEALTH AND PHYSICAL EDUCATION

MATHEMATICS

HUMANITIES

NATURAL SCIENCE

ELECTIVES

TOTAL MINIMUM REQUIRED .200-222 hours

B. Distributive Education

Option 1.

GENERAL EDUCATION

COMMUNICATIONS

HUMANITIES

Mathematics (3-4 hours)

Natural Science electives.

Humanities (15 hours)

Literature elective (4 hours); humanities elective (12 hours).

NATURAL SCIENCE

Psychology (9 hours)

ELECTIVES

TOTAL MINIMUM REQUIRED .23 hours

C. Industrial Education

Option 1. Concentration in Trades and Industries

GENERAL EDUCATION

COMMUNICATIONS

Health and Physical Education

ELECTIVES

TOTAL MINIMUM REQUIRED .183 hours

Option 2. Concentration in Industrial Arts

GENERAL EDUCATION

COMMUNICATIONS

Health and Physical Education

ELECTIVES

TOTAL MINIMUM REQUIRED .186 hours

*Requires admission to Teacher Education Program.
Departments of Instruction

Art and Music Education

Professors:

Associate Professors:

Assistant Professor:
J. R. Sparks, 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. S/NC. May be repeated for credit. F, W, S.
3100 Introduction to Art in Education (2) Philosophy, developmental theory, goals, and media in relation to art education; directed experiences with selected media; field experience; prerequisite to other art education courses; for both majors and non-art education majors. E.
3110 Crafts in the Elementary School (3) Prereq: Art Ed. 3100. 1 hrs. and 2 labs. A.
3220 Learning Through Studio Experiences: Sculpture and Craft Design (3) Selected sculpture and craft design experiences; consideration of: (1) subject matter, ideas, and concepts; (2) media and processes; (3) development and sequencing of appropriate learning activities for art program. Prereq: Art Ed. 3100 and at least one course in sculpture or crafts. S.
3320 Learning Through Studio Experiences: Graphic Design and Lettering (3) Selected graphic design and lettering experiences; consideration of: (1) subject matter, themes, and concepts; (2) media and processes; (3) development and sequencing of appropriate learning activities for art program. Prereq: Art Ed. 3100 and at least one course in lettering or graphics. F, W, S.
3500 Art and Music Appreciation in the Elementary School (4) For majors in Elementary Education. Media, techniques, and styles of arts and music; methods and materials of teaching art appreciation in the elementary classroom. F, W, S.
3511 Field Experiences in Teaching Art (1) Field experiences in which students perform tasks related to teaching and to teacher roles. S/NC. May be repeated for credit. F, W, S.
4100 Pre-Student Teaching Seminar (1) Orients student teachers to the campus centers and the student teaching program; describes the objectives and policies of the student teaching program; meets special needs of student teachers; raises awareness of professional liability. The pre-student teaching seminar must be completed the quarter immediately preceding student teaching. Fall quarter student teachers complete pre-student teaching seminars spring quarter. Prereq: Full admission to the Teacher Education Program. Undergraduate credit only. May not be repeated for credit. S/NC only. F, W, S.
4110 Program Development in Art (3) Foundation readings for philosophy; writing program units; analysis of curriculum guides; field experience required (credit optional). Prereq: Art Ed. 3100 and 9 hours art education. W.
4200 Designing Teaching Aids for Art (3) Resources for art teaching—identifying, locating, and using; development of slide-tape presentation and other teaching aids for art teaching. Prereq: Art Ed. 3100 and 9 hours art education. S.
4300 Learning through Appreciation and History of Art (3) Review of historical periods; criticism and discussion in teaching art. Prereq: Art Ed. 3100. F.
4350-50-70 Problems in Art Teaching (3, 3) Prereq: Consent of instructor. E.
4400 Strategies for Teaching Art (3) Readings on teaching art and planning for teaching; development of lessons; field experience in classrooms. Prereq: Art Ed. 3100 and 9 hours in Art Education. S.
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. A.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.

Music Education (1077)
The curricula in music education provide for three areas of concentration: vocal music (voice principal), vocal music (piano or organ principal), and instrumental music.
1010-20 Choral Laboratory (1,1) Choral conducting: methods and materials required of all music education majors. Prereq: Consent of instructor. W.
1151 Field Experience in Teaching Music (1) Field experiences in which students perform tasks related to teaching and to teacher roles. S/NC. May be repeated for credit. F, W, S.
2100 Basic Experiences in Classroom Music (3) Vocal, instrumental, rhythmic, listening, music reading, and creative activities. Prereq: Major in elementary or special education. 5 hours. E.
2110 Experiences in Classroom Music (3) Vocal, instrumental, rhythmic, listening, music reading, and creative activities. Prereq: Approval of instructor, one year of music theory, 2 hours and 1 lab. F.
2411-12-13 Methods, Materials, and Techniques of String Class Instruction (2, 2, 2) Structure, use, techniques of playing, and repair of principal instruments in school instrumental organizations. 5 hours. E.
2421-22-23 Methods, Materials, and Techniques of Woodwind Class Instruction (2, 2, 2) Structure, use, techniques of playing, 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. 2411-F; 2412-W; 2413-S.
2424-25-26 Methods, Materials, and Techniques of Brass Class Instruction (2, 2, 2) Structure, use, techniques of playing, 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. 2424-F; 2425-W; 2426-S.
2433 Methods, Materials, and Techniques of Percussion Instruction (2, 2) Structure, use, techniques of playing, 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-W; 2432-S.
cussion Class Instruction (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. F, W.

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


3120 Instrumental Methods (3) Procedures, techniques, curriculum, scheduling, administration, evaluation, materials and equipment, composition and improvisation. Prereq: Two years of music theory; coreq: 3511.


3511 Field Experiences in Teaching Music (1) Field experiences in which students perform tasks related to teaching and to teacher roles. S/NC. May be repeated for credit. F, W, S.

4100 Pre-Student Teaching Seminar (1) Orients student teachers to the off-campus centers and the student teaching program; describes the objectives and policies of the student teaching program, meets special needs of student teachers; and raises awareness of professional liability. The pre-student teaching seminars must be completed the quarter immediately preceding student teaching. Fall quarter student teachers complete pre-student teaching seminars spring quarter. Prereq: Full admission to the Teacher Education Program. Undergraduate credit only. May not be repeated for credit. S/NC only. F, W, S.

4230-60 Choral and Instrumental Conducting (3) Reading, conducting, and interpretation of vocal and instrumental scores suitable for school, church, and community groups 4200--vocal music, 4430--instrumental music. Prereq: 1010-20 and 3 hours of credit from 2411-21-31 series and two years of music theory. Must be taken in sequence. 2 hours and 1 lab.

4411-42-43 Teaching Class Piano (1, 1, 1) For majors in music, music education, or elementary education. Coreq: 2011 and admission to Teacher Education. E.

3105 Teaching Music in Junior and Senior High Schools (3) Procedures, techniques, curriculum, scheduling, administration, evaluation, materials and equipment, composition and improvisation. Prereq: Two years of music theory; coreq: 3511.

3106 College of Education/Art and Music Education (5) Undergraduate programs in the Department of Curriculum and Instruction provide the general professional courses for the pre-service education of teachers in elementary and secondary schools.

1410 Efficient Reading and Study Skills (2, 1) Improve ment of reading rate, comprehensive vocabulary, and study skills as they relate to content area subjects. May be repeated for a maximum of 1 hour credit for individual laboratory attention. S/NC. F, W, S.

1500 Introduction to Early Education (3) Same as Child and Family Studies 1500.

2010 Field Experience in Teaching: Elementary (2) Field experiences in which student teachers perform tasks related to teaching at primary or intermediate grade levels in elementary school. S/NC.

2011 American Public School: Structure and Government (1) Control of American public schools; role of local, state, and national government, includes an examination of school finance. SP.

2020 Field Experience in Teaching: Secondary (2) Field experiences in which students perform tasks related to teaching in the secondary school. S/NC.

3010 Field Study in Education (3) Problems of teachers in active service in the fields of methods of teaching, curriculum materials, school-community relationships, and school organizations.

3011 History and Philosophy of Education (3) Role of philosophy in education; realism, Neo-Thomism, pragmatism, and other contemporary movements; major ideas, historical roots, and modern applications. Undergraduate credit only.

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

3021 School in the American Society (3) Social issues in American education, including class, race, sex, and religion. Will include a supervised field experience. Prereq: 2011 and admission to Teacher Education. F.

3350 Social Foundations and Curriculum (3) Culture and society and their influences on curriculum; principles, programs, and procedures of subject matter selection, sequence, grade placement, and time allotment; curriculum issues; state curriculum policies and practices. Undergraduate credit only.

3381 Curriculum I: Microcomputers in Curriculum and Instruction (3) Introduction to the basic operations and applications of the microcomputers it relates to curriculum development and implementation. Prereq: Admission to Teacher Education. F.

3382 Curriculum II: Research on Effective Teaching (1) Introduction to the research on effective teaching. Prereq: 3301 and admission to Teacher Education. W.

3383 Curriculum III: Curriculum Design and Evaluation (1) Introduction to the basic concepts, principles, and processes of curriculum design and evaluation. Prereq: 3302 and admission to Teacher Education. F, S.

3384 Microteaching (3) Emphasis upon the development of instructional skills. Students teach a series of lessons to small groups 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.

3385 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 C&I 3380. Prereq: Educ Psych. 3430 or equivalent, admission to Teacher Education. E.

3386 Developing Social Studies Content Concepts for Elementary School (3) Study of content of Social Studies and development of concepts relevant to elementary social studies. Prereq: Admission to teacher education.

3387 Teaching Social Studies in the Elementary School (3) Methods and materials. Undergraduate credit only. Prereq: Educ Psych. 3430 or equivalent, admission to Teacher Education. E.

3388 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 program in the elementary school. Prereq: Educ Psych. 3430 or equivalent and admission to Teacher Education. E.

3389 Teaching Developmental Reading in the Elementary School (3) Second course in sequence designed to teach content and skills of teaching reading in the elementary school. Prereq: 3388 and admission to Teacher Education. E.

3392 Teaching Elementary School Developmental Reading (4) This is a beginning course in a sequence designed to enable preservice teachers to develop the skills and understandings necessary for the operation of a successful developmental reading program in the elementary school, including word recognition, phonics, comprehension, and evaluation. Prereq: Admission to Teacher Education.

3393-94 Basic Principles and Practices of Elementary School Instruction (1) Fundamental considerations of planning, organization, management, and evaluation in elementary school classrooms. Scheduled with professional methods blocks. Prereq: admission to Teacher Education.

3395 History of Education in the United States (3)

3396 Teaching Elementary School Mathematics (3) Enables preservice teachers to develop skills and understandings necessary for teaching mathematics program in the elementary school. Prereq: Educ Psych. 3430 or equivalent, Mathematics 2110-22-33 and admission to Teacher Education. Must be taken prior to student teaching. E.

3397 Teaching Elementary School Mathematics (3) Methods of teaching elementary school mathematics. Prereq: 3396 or equivalent.

3510 Books and Related Materials for Children (3) (Same as Library and Information Science 3510). E.
3511 Field Experience in Teaching Elementary (Prerequisites: 3510-3512) Field experience in which students perform tasks related to teaching and teacher roles. Must be taken prior to 3512 and student teaching. Prereq: Admission to teacher education. F, W, S.

3512 Field Experience in Teaching Elementary (Intentions and methods) Field experience in which students perform tasks related to teaching and teacher roles. Must be taken prior to 3513 and student teaching. Prereq: Admission to teacher education. F, W.

3513 Field Experience in Teaching Elementary (Field experiences in which students perform tasks related to teaching and teacher roles. Must be taken prior to 3513 and student teaching. Prereq: Admission to teacher education. F, W.

3561 Teaching of Speech and Drama, Grades 7-12 (3) For description, see 3653. Prereq: Admission to Teacher Education. W.

3562 The Teaching of Foreign Languages: Grades 7-12, Part I (3) First course in sequence; methods, lesson planning, peer-teaching, commercial and teacher-made materials for teaching the foreign language. This course and Ed. C&I 3563 are required for certification in modern foreign languages and Latin. Prereq: Completion or completion of foreign language hours for certification required. Admission to Teacher Education. F.

3563 The Teaching of Foreign Languages: Grades 7-12, Part II (3) Second course in sequence; implementation of foreign language evaluation techniques, advanced methods and teacher-made materials in peer-teaching and field settings. This course and Ed. C&I 3562 are required for certification in modern foreign languages and Latin. Prereq: 3562 and admission to Teacher Education. W.

3630 History and Philosophy of Afro-American Education (3) (Same as Afro-American Studies 3630.)

3640 Contemporary Issues in Afro-American Education (3) (Same as Afro-American Studies 3640.)

3653 The Teaching of the 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: Edu. Psych. 3010 or equivalent, admission to teacher education. F, W.

3654 The Teaching of Science, Grades 7-12 (3) For description, see 3653. Prereq: Admission to Teacher Education. F, S.

3657 Teaching Language, Composition, and Speaking, Grades 7-12 (3) For description, see 3653. Both this course and Educ. C&I 3658 are required for certification in English. Prereq: Admission to Teacher Education. W.

3658 Teaching Reading, Literature, and Listening, Grades 7-12 (3) For description, see 3653. Both this course and Educ. C&I 3657 are required for certification in English. Prereq: Admission to Teacher Education. W.

3719 Developing Science Content Concepts for Elementary Grades 1-6 (6) (Same as Cultural Studies and History 4292.)

3720 Teaching Science in the Elementary School (2) Methods and materials, undergraduate credit only. Prereq: Educ. Psych. 3430 or equivalent, admission to Teacher Education. E.

3751 Teaching of Mathematics: Numerical and Algebraic Concepts for Intermediate Levels (3) (6) (7) (8) For courses in which Edu. C&I 3563. Both this course and 3752 are required for certification in mathematics. Prereq: Admission to Teacher Education. F.

3752 Teaching of Mathematics: Geometry and Analysis, Grades 9-12 (3) For description, see 3655. Prereq: 3563. Both this course and 3751 are required for certification in mathematics. Prereq: Admission to Teacher Education. W.

3853 Teaching Practices and Issues in Social Studies Education (Grades 7-12) (3) Prerequisites and problems with practical teaching-learning activities in Social Studies Education. Both this course and Education 3653 are required for certification in Social Studies. Prereq: 3653 and admission to Teacher Education. F, W.

4011 Educational Thought in America (3) A post-student teaching seminar in the history and philosophy of education in American culture. Offered concurrently with student teaching only. Prereq: 3521 and admission to Teacher Education. F, S.

4090 Special Topics (1-6) Topics to be assigned. May be repeated. Will be offered for letter grade or S/NC.

4091 Independent Study (1-6) Topics to be assigned. May be repeated. Will be offered for letter grade or S/NC.

4092 Supervised Readings (1-6) Topics to be assigned. May be repeated. Will be offered for letter grade or S/NC.

4100 Pre-Student Teaching Seminar (1) Orients students to the off-campus centers and the student teaching process; describes the objectives and policies of the student teaching program, meets special needs of student teachers, and raises awareness of professional liability. The pre-student teaching seminars must be completed the quarter immediately preceding student teaching. Fall quarter student teachers complete pre-student teaching seminars spring quarter. Prereq: full admission to the Teacher Education Program. Undergraduate credit only. May not be repeated for credit. S/NC. F, W.

4111 Non-Western Education: Anthropological Approaches (3) (Same as Anthropology 4150.)

4150 School Library Administration (3) (Same as Library and Information Science 4150.)

4215 Teaching Elementary School Science (3) Methods and materials used in teaching science in elementary school. Developmental and diagnostic/ corrective programs. Not open to students with recent course or background in teaching of science. Prereq: Education 3653. Both this course and Education 3653 are required for certification in science. Prereq: Admission to Teacher Education. F.

4216 Teaching Elementary School Mathematics (3) Methods and materials used in teaching of mathematics at the elementary level. Emphasis on middle school and secondary school programs. F, S.

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.

4240 Classroom Instructional Organization (3) Developing understandings and skills relating to grouping, individualization, space utilization, organization, grading, integration, and achieving an effective social environment in the elementary classroom teacher. Prereq: Senior standing.

4260 Orientation to Corrective Practices for Classroom Reading Problems (3) An orientation to the basic practice of diagnosing and correcting reading problems in the classroom. The beginning teacher deals with the collection and interpretation of reading behavior information and the prescription and implementation of teaching. Prereq: A course in the teaching of reading.

4292 History and Philosophy of Afro-American Education (4) (Same as Cultural Studies and History 4292.)

4300 Developmental Reading in Secondary School and Community College (3) An introductory course covering approaches to the teaching of basic reading skills and organizing reading classrooms and/or laboratories at the middle school, secondary school, and community college level. F, S.

4303 Language Development of Children: Birth-First Grade (3) Provides an overview of the development from birth through preadolescence; application of process of language development to instructional programs for early and middle childhood. F, S.

4304 Developing Reading Skills in Content Fields (3) Development of reading skills in content areas of the school program. Emphasis on middle school and secondary school programs. F, S.

4400 Problems in Improvement of Instruction (1-3) Special conferences, workshops, or in-service programs designed for improvement of instruction. May be repeated. Maximum credit 9 hours. S/NC.

4410 Educational Sociology (3) (Same as Sociology 4410.)

4450 Teaching in Kindergarten: Overview (3) Relationships of kindergarten to total elementary program; basic, historical settings and current developments.

4451 Teaching in Kindergarten: Program Development (3) Curriculum planning and organization; classroom management. Prereq: Admission to Teacher Education.

4452 Elementary School Teaching: Minicourse (1-3) Minicourse focusing on various aspects of teaching in elementary school. Topics vary. Prereq: Student teaching. May be repeated.

4453 Early Childhood Education: Program Development and Teaching in Kindergarten (3) Curriculum planning, classroom organization and management practices for teaching young children. Relationship of Kindergarten to total elementary school. Prereq: Admission to Teacher Education.

4564 Methods, and Materials in Environmental and Science Education (3) Instructional methods, materials, curricular programs and current issues in environmental and science education for classroom teachers. Prereq: Admission to Teacher Education.

4710 Student Teaching, Grades 7-12 (9) Application for student teaching must be filed not later than the final quarter of junior year. Students should hold themselves available to do this work in off-campus center. Must be taken with 4720. Prereq: 3010-20-30, Educ. Psych. 3430, and appropriate elementary school. Developmental and diagnostic/corrective programs. Minimum grade point average of 2.0. Undergraduate credit only. S/NC. F, W, S.

4720 Student Teaching, Grades 7-12 (6) Cooperative planning with other students and teachers; analyses practices and techniques; measurement. Prereq: Application for student teaching must be filed not later than the final quarter of junior year. Students should hold themselves available to do this work in off-campus center. Must be taken with 4710. Prereq: Admission to Teacher Education. F.

4750 Utilization of Instructional Media (3) Introduces the basic communications process, need for instructional media, instructional development, production and utilization of media and basic software production techniques. (Same as Library and Information Science 4750 and Vocational-Technical Education 4750.)

4751 Using Instructional Media in the Elementary Classroom (2) Basic operation of audiovisual hardware, selection and utilization of materials, and basic production skills needed for effective communication in the elementary classroom. Offered as media laboratory experience in conjunction with elementary methods block.

4810 Student Teaching in the Elementary School (9) Application for student teaching must be filed not later than the final quarter of junior year. Students should hold themselves available to do this work in off-campus centers. Must be taken with 4820. Prereq: 3010-20-30, 3620-70-80, 3350, 3720, Educ. Psych. 3430; Library Service 3110; minimum grade point average of 2.0. Undergraduate credit only. S/NC. F, W, S.
4620 Student Teaching in the Elementary School (6) Must be taken with 4810. Undergraduate credit only. S/NC. F, W, S.

4650 Student Teaching in Early Elementary School (K-3) (9) Application filed no later than second quarter of junior year with placement one quarter prior to quarter of graduation. Consult with Education C & I 3350, 3370 or 3720, 3280, 3350, 4451; CFS 3120, 3210. S/NC. F, W, S.

4651 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 3350, 3370, 3280, 3350, 4451; CFS 3120, 3210. S/NC. F, W, S.

4660 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 3210, Educ. Psych. 3730, or consent of instructor. (Same as Psychology 4860).

4670 Applications of Computers for Instructional Purposes (3) Computer concepts for teachers at all grade levels; computer operation; applications of computers for teachers; and current classroom uses of computers. Letter grade only. Prereq: 3030 or consent of instructor.

GRADUATE Graduate instruction in the Department of Curriculum and Instruction provides opportunities to improve the effectiveness of educational service in a number of areas. Consult the Graduate Catalog for listing of graduate level courses.

Education (289) GRADUATE Consult the Graduate Catalog for listing of graduate level courses.

Educational Leadership


GRADUATE Consult the Graduate Catalog for listing of graduate level courses.


Assistant Professor: W. D. Barton, Ed.D. Tennessee.

4554-55-56 Student Leadership Workshops (1,1,1) Small group and individualized experiences to develop knowledge and skills in leadership roles. Sections are designed for resident assistants, student government leaders, student activities, and other student organizations. Prereq: Consent of instructor. S/NC only.

GRADUATE Consult the Graduate Catalog for listing of graduate level courses.

(Also see course listings under the Departments of Curriculum and Instruction, Educational Administration and Supervision, and Educational and Counseling Psychology).


2000 Field Experience (1) Field experiences in working with children and youth and their teachers. Students will perform various teaching tasks and be given opportunity to act in teaching roles. May be repeated for a total of 6 credit hours. E.

2001 Educational Psychology I: Applications of Principles of Human Growth and Development for Teachers (4) Understanding and application of principles of human growth and development to the teaching/learning process in educational settings. Includes supervised field experience. S.

2210 Academic Development (3) The development of skills in competence in higher education, including principles of learning, self-knowledge, techniques of behavior change, time use, examination preparation, and study habits. Application of learned skills to current courses. E.

2220 Personal Development (3) A study of the relationships among self, others, and environment in contemporary culture. Topics include self-awareness, interpersonal skills, environmental awareness, values clarification and socialization. W.

2230 Career Development (3) Vocational opportunities and aspirations, including self-appraisal, career planning, decision making, occupational exploration, and vocational development. F, W.

2299 Developmental Laboratory (1) Repeatable to three credit hours. Specialized laboratory experiences in the improvement of skills related to academic, personal, or career development. E.

3000 Field Experience (1) Field experiences in working with children and youth and their teachers. Students will perform various teaching tasks and be given opportunity to act in teaching roles. May be repeated for a total of 6 credit hours. E.

3002 Educational Psychology II: Principles of Learning and Classroom Management for Teachers (4) Understanding and application of the principles of human learning and of classroom management to the teaching/learning process in the public schools. Prereq: 2001 or equivalent and admission to Teacher Education Program. Undergraduate credit only. May not be repeated for credit. F, W, S.

4110 Psychology of Sex Role Development (3) Examination, from both a theoretical and research base, of factors which contribute to sex role development with attention to changes in sex role definition in society and role of education in these changes. Aimed at the undergraduate or graduate student with minimal background in behavioral sciences. (Same as Psychology 4115) F, S, SU.

4120 Mental Health (3) Studies and exploration of positive mental health. Application of mental health criteria to study of one's self based on a battery of personality assessment instruments. F, S, SU.

4320 Self-Management for Personal and Professional Development (3) Self-management applications in career, social, emotional and physical development. Includes both theoretical and experiential activities. Prereq: An introductory course in psychology or the consent of the instructor. W, SU.

4350-50-70 Special Topics and Problems (1-6, 1-6, 1-6) May be offered for letter grade or S/NC and may be repeated. E.

4551-52-53 Student Leadership Workshops (1, 1, 1) Series of small group discussions to provide opportunities to develop knowledge and skills required of students in leadership roles. Sections are designed for resident assistants, student government leaders, student activities, and other student organizations. Prereq: Consent of instructor. S/NC. E.

4640 Standardized Testing (3) Use and interpretation of standardized group instruments in assessment of intelligence, aptitude, achievement, vocational interests and personality adjustment. F, W, SU.

4650 The Construction of Classroom Tests (3) Concerned with teacher-made classroom tests: Instructional objectives, principles of test construction, item analysis, evaluating a test's reliability and validity, interpretation of test scores, relationship between testing and grading. S.

4769 Advanced Child Study (3) Prereq: 3420 or 3610 or consent of instructor. F, S, SU.

4800 Psychology of the Disadvantaged Child (3) Significant behavioral differences and causes; appropriate intervention approaches. E.


GRADUATE Consult the Graduate Catalog for listing of graduate level courses.
and principles explaining motor behavior; psychological or at least sophomore standing.

Emphasis will be placed on individual factors related to and/or affecting motor skill acquisition, principles, terminology, and etiquette. W.

The introduction of development of basic fundamental skills, general rules, and strategy, related to the game of volleyball with particular emphasis on acquisition of skill. A.

The introduction and development of basic fundamental skills, general rules, and strategy, related to the game of golf with particular emphasis on acquisition of skill. F.

Preparation and presentation of public performances. May be repeated. Maximum credit 4 hours. Prereq: Consent of instructor. F. W.

Development of skills in tumbling and on selected men's and women's gymnastics apparatus. Tumbling skills will include twisting skills, kips, and combinations of previous skills. Apparatus will include uneven bars, horizontal bar, parallel bars, and still rings. Prereq: 1042. W. S.

Preparation and presentation of public performances. May be repeated. Maximum credit 4 hours. Prereq: 2040 or consent of instructor. F. W.

The introduction to basic ballroom dance steps, patterns, and designs. Emphasis on skill acquisition, principles, terminology, and etiquette. W.

Preparation and presentation of public performances. May be repeated. Maximum credit 4 hours. Prereq: 2050 or consent of instructor. F. W.

The introduction and development of basic fundamental skills, general rules, and strategy, related to the game of football with particular emphasis on acquisition of skill. A.

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

Physical Education Major: Softball (2) The introduction and development of basic fundamental skills, general rules, and strategy, related to the game of softball with particular emphasis on acquisition of skill. S.

Secondary Field Experience II (2) Observation, teaching, and leadership experience in physical education classes. Emphasis will be placed on individual and small group teaching experiences. Prereq: 1500 or at least sophomore standing.

Current theories and principles explaining motor behavior; psychological factors related to and/or affecting motor skill acquisition and performance. Prereq: At least sophomore standing. F. W.
4105 Advanced Ballet Technique (2) Emphasis on stylization and method of advanced classical ballet technique, including multiple pirouettes, batterie, équilibre and advanced passé point work. Prereq: 4000. Available to dance majors and minors or with consent of instructor. May be repeated. Maximum credit 6 hours. Senior standing or graduate status required for graduate credit. There is a different level of performance expected of those registered for graduate credit. F, W, S.

4106 Advanced Modern Technique (2) Development, integration, and synthesis of previous dance vocabulary, emphasis on advanced practice and principles. May be repeated. Maximum credit 6 hours. Senior standing or graduate status required for graduate credit. There is a different level of performance expected of those registered for graduate credit. F, W, S.

4150 The Teaching of Creative Dance (3) Theory, methods, materials, and practical experience in the presentation and integration of creative dance in grades K-6. A.

4160 Athletic Coaching Field Experience (2) Practical experience in coaching and related responsibilities. Must be repeated. Maximum credit 4 hours. Prereq: Approval of instructor. F, W, S.

4170 Physical Activity and Fitness (3) Theoretical knowledge, skills, and methods of activities relating to health related aspects of physical fitness. 2 hrs. and 1 lab. Prereq: At least junior standing. F, W.

4200 Motor Behavior Teaching Methods (2) Application of theories and methods of teaching of the teaching and learning environment: planning, presenting, and evaluating lessons concerning knowledge, strategies, and skills for physical activity, games, and sport. Prereq: 3600, minimum of 16 hrs. P.E. Major activity courses and admission to Teacher Education.

4220 Applied Kinesiology (3) Analysis of movement and muscle group involvement; application of the laws of physics to human movement exercises, programs for specific muscle group involvement. Prereq: 3200, Physics 1450, 1310 or consent of instructor. F, W, S.

4230 Program Planning in Physical Education (2) Curriculum building, course construction, and lesson planning for public schools and colleges. Prereq: 4200. A.

4240 Designing and Implementing Movement Programs for Children (3) Approaches to the design and implementation of preschool, elementary, and middle school movement programs. Prereq: Admission to teacher education and consent of instructor. A.

4250 Practicum for Physical Education Majors (1-10) Experiences in the community to support and clarify course work. Prereq: Consent of instructor. S/NC.

4300 Intermediate Tap Technique (2) Instruction and practice in intermediate level tap skills and techniques. S/NC only. Prereq: P.E. 3300 or consent of instructor. W.

4330 Directed Independent Studies (1-3) Independent study in a specialized area within physical education. Prereq: Consent of advisor. May be repeated. E.

4360 Techniques of Games Forms (2) Study of non-traditional games which includes personal skill development with application to teaching techniques. Prereq: At least junior standing or consent of instructor. A.

4385 Techniques of Folk, Square, and Balloon Dance (2) Development of intermediate to advanced level of skill in folk, square, and balloon dance with application to techniques of teaching. Prereq: 1052 and 2052 or consent of instructor. A.

4375 Techniques of Track and Field (2) Development of intermediate to advanced level of skill in track and field with application to techniques of teaching. Prereq: 1062 or consent of instructor. A.

4380 Techniques of Tennis (2) Development of intermediate to advanced level of skill in tennis with application to techniques of teaching. Prereq: 1032 or consent of instructor. A.

4385 Techniques of Golf (2) Development of intermediate to advanced level skills in golf with application to teaching techniques. Prereq: 2032 or consent of instructor. A.

4390 Techniques of Basketball (2) Development of intermediate to advanced level of skills in basketball with application to techniques of teaching. Prereq: 1022 or consent of instructor. A.

4395 Techniques of Volleyball (2) Development of intermediate to advanced level of skill in volleyball with application to techniques of teaching. Prereq: 2022 or consent of instructor. A.

4400 Administration of Physical Education (3) Selected topics in organization and administration problems related to educational programs in schools. Emphasis placed on human relations approach to solving problems in administration. Prereq: 4230. W.

4500 Elementary Field Experience II (2) A micro-student teaching experience at the elementary or middle school level. Prereq: Admission to Teacher Education and consent of instructor. S/NC.

4550 Methods of Teaching Dance (3) Principles and methods for the teaching of dance with practical application in a mini-teaching experience. Prereq: Upperclass or graduate standing and approval of instructor. Senior standing or graduate status required for graduate credit. There is a different level of performance expected of those registered for graduate credit. A.

4560 Movement Notation (3) Fundamentals of movement notation with emphasis on the notation and reading of movement studies. Senior standing or graduate status required for graduate credit. There is a different level of performance expected of those registered for graduate credit. A.

4670 Practicum in Pre-School Motor Development (4) Study/review of selected motor development and movement education concepts, and application through assessing performance and designing and presenting developmental movement tasks to pre-school children. Prereq: 3530 and 3570 or consent of instructor. W, S.

GRADUATE Consult the Graduate Catalog for listing of graduate level courses.

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.

2700 Special Topics (2)
2701 ARC Advanced Life Saving (2)
2702 ARC Water Safety Instructor Training (2)
2703 ARC Water Safety Instructor for Handicapped (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)
2720 Physical Fitness: Exercise to Music (2)
2716 Bowling Intermediate (2)
2727 Flag Football (2)
2728 Folk and Square Dance (2)
2730 Physical Fitness: Conditioning (2)
2731 Golf Elementary (2)
2732 Golf Intermediate (2)
2734 Women's Elementary Gymnastics (Coed) (2)
2735 Women's Intermediate Gymnastics (Coed) (2)
2737 Handball Elementary (2)
2738 Handball Intermediate (2)
2741 Ice Skating Elementary (2)
2742 Ice Skating Intermediate (2)
2743 Ice Skating Advanced (2)
2747 Modern Dance Elementary (2)
2748 Modern Dance Intermediate (2)
2749 Modern Dance Advanced (2)
2750 Modern Jazz (2)
2752 Paddleball Elementary (2)
2755 Racquetball Elementary (2)
4100 Pre-Student Teaching Seminar (1) Orients student teachers to the off-campus centers and the student teaching program; describes the objectives and policies of the student teaching program, meets special needs of student teachers; and raises awareness of professional liability. The pre-student teaching seminars must be completed the quarter immediately preceding student teaching. Fail quarter student teachers complete pre-student teaching seminars spring quarter. Prereq: full admission to the Teacher Education Program. Undergraduate credit only. May not be repeated for credit. S/NC only.

4210 Introduction to Industrial Health (3) Introduces the fundamental activities involved in the field of industrial health. Emphasis on the industrial health hazards and problems of concern to nurses, medical staff, management, engineers, and others involved in the industrial health and safety fields. Prereq: Consent of instructor. Not available to Occupational Health majors (M.P.H.) for graduate credit.

4220 Communications for Better Health (3) Selective study of communications in health enterprise. Consideration in logical progression of 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. W.

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

4700-10-20 Field Practice in Public Health (3, 3, 3) Field practice in public health under supervision of public health profession. S/NC. E.

4730 Workshop in Public Health Education (3-8) The workshop provides opportunity for students to share and develop skills in educational techniques and problem-solving strategies. Prereq: Consent of instructor. F.

4750 Workshop in Public Health Education (3) Workshop introduces students to the planning, implementation, and evaluation of public health education programs. Prereq: Consent of instructor. F.

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

GRADUATE Consult the Graduate Catalog for listing of graduate level courses.

Recreation (853)

Professor: G. A. Hayes (Chairperson), Ph.D. North Texas State University.

Associate Professor: K. L. Knick, Re.D. Indiana.

Assistant Professor: M. D. Blanton, Re.D. Indiana.

1000-2000-3000 Field Practice (2-3, 3-3, 2-3) Supervised practice in an approved agency offering leisure services. Each hour's credit requires 25 hours of work in field agency. For recreation students only. Must be taken in sequence. E.

1100 Orientation to Recreation Profession (3) Overview of types, functions, and interrelationships of delivery systems for recreation and park services. W.

3100 Recreation Leadership Procedures (3) Principles and practices in leadership, technical knowledge and dynamics of working with individuals and groups in leisure activity. Two one-hour lectures and one two-hour lab each week. Prereq: 1000 and 1100. F.

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

3200 Planning Leisure Programs (3) Principles and methods employed in planning effective and well-balanced leisure time programs for varied groups in various settings. Prereq: 2000, 3100. S.

3220 Organization, Supervision, and Management of Recreation Programs (3) Management, organization, personnel management, program services, finances, and public relations. Prereq: 3140, 3200, 3880 or consent of instructor. F.

3301 Outdoor Recreation Skills and Techniques I (3) Fundamentals necessary for safe participation in outdoor recreation activities such as hiking, swimming, climbing, and camping. Emphasis on natural environment without destruction or disturbance of plant and animal habitats. Prereq: Consent of instructor. F, A.

3302 Outdoor Recreation Skills and Techniques II (3) Instruction in safe conduct of outdoor recreational activities such as sailing, skin diving, caving, rock climbing, and nature interpretation without disturbance of environment. Provision of outdoor recreation experiences for the handicapped. Two 1-hour lectures/discussion and one 2-hour lab each week. Prereq: Consent of instructor. F, A.

3710 Camp Counseling (3) History and philosophy of camping movement, counselor leadership and program planning skills and outdoor living skills. S.

3880 Social Recreation (3) Principles and practice of social recreation suitable for all age groups appropriate to a variety of settings. Content includes methods of conducting low-organized and social interaction activities for special events and programs. F.


4130 Recreation Administration (3) Introduction to recreation administration, including planning, personnel, areas and facilities, program services, finances, and public relations. Prereq: 3140, 3200, 3880 or consent of instructor. S.

4200 Survey of Recreation for Special Populations (3) Recreation and community services such as aging, skin diving, caving, and groups whose leisure opportunities and needs may require special services. Prereq: 3140, 3200, 3880 or consent of instructor. F.

4310 Camp Administration (3) Program planning and organization, personnel management, camp site development and maintenance and camp operation for administrators and supervisors of organized camps. W.

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 credit of 9 hours with consent of the division. Prereq: Consent of instructor. E.

GRADUATE Consult the Graduate Catalog for listing of graduate level courses.

Special Education and Rehabilitation (933)


Assistant Professors: S. W. Mulkey, Ph.D. Florida State.

Instructors: D. A. Ashmore, M.S. Tennessee; A. M. Griffin, M.S. Tennessee; G. D. Tyler, M.S. Tennessee; M. K. Warden, M.S. Tennessee; D. D. Wilson, M.S. Tennessee.

It is possible to plan a program which will lead to certification in Speech and Hearing. For planning a program, the student must consult with an advisor in the chosen area. Certification is available at the graduate level. NOTE: Only grades of C and above in the major area of study will be credited for certification and graduation.

Speech and Hearing: 3310, 3333, 3710, 4030, 4040, 4320, 4320, 4340, 4341, 4342, 4400, 4720, 4930. Other courses from Audiology and Speech Pathology: 3010, 3050, 3065, 3200, 4610, 4650.

2120 Field Experience (3) Students observe, tutor, and perform teacherrated tasks in non-special education programs. S/NC. W.

3310 Articulation Disorders (4) (Same as Audiology and Speech Pathology 3310).

3333 Education of the Exceptional Child (3) Princi- ples of and methods for meeting the educational, physical, and emotional characteristics; special educational techniques. Prereq: Admission to Teacher Education.

3710 Audiology I (3) (Same as Audiology and Speech Pathology 3710).

4000 Rehabilitation Practicum (3) Evaluation of client data in predicting rehabilitation prognosis. Prereq: 4230. F, S.

4030 The Professional Aspects of Speech/Language/ Hearing Programs in the Schools (3) Comprehensive study of the organization, administration of school programs. Also, other settings, hospitals, institutions, private practice, professional certification levels, legislation, careers. W.

4040 Appraisal of Speech and Language Disorders (4) Prereq: 3200, 4330 or consent of instructor. (Same as Audiology and Speech Pathology 4040.) (Audiology & Speech Pathology primary department.)

4100 Pre-Student Teaching Seminar for Teachers in Special Education (1) A seminar to provide students with additional information about student teaching. Prereq: Consent of instructor. Tennessee certification in Special Education. F, W, S.

4110 The Nature and Concept of Mental Retardation (3) Identification, description, and study. W, S.

4120 Education of the Mentally Retarded Child (3) Philosophy and rationale underlying the teaching and guidance of the mentally retarded; methods and techniques in special and regular classes. Prereq. or coreq: 4110 and admission to Teacher Education. F, W, S.

4130 Education of the Brain-Injured Child (3) Nature of brain-injured child; skills for identifying education- al, physical, and emotional characteristics; special educational techniques. Prereq: Admission to Teacher Education.

4150 Education of Children with Crippling and Spe- cial Health Conditions (3) Medical and educational characteristics, and special health conditions; appropriate educational modificat- ions and associated services. Prereq/Coreq: 3333 or consent of instructor and admission to Teacher Educa- tion. F, W.

4190 Speech Development of the Hearing Impaired (3) Anatomy and physiology of speech system. Rela- tionship of hearing to speech development and improve- ment for hearing impaired children. Prereq. Speech 3060 (Same as Audiology and Speech Pathology 4190). F.

4200 Practicum in Speech Development of Hearing Impaired Children (3) Observation of theories and techniques of speech development and improvement with hearing impaired children. Prereq: 4190 and consent of instructor. (Same as Audiology and Speech Pathology 4200). W.

4210 Language Development of Hearing Impaired (3) Systems by which formal language is presented. Prereq: Consent of instructor. To Teacher Education. (Same as Audiology and Speech Pathology 4210.) F.

4220 Language Development for the Hearing Impaired II (3) Techniques; various systems by which formal language is presented. Prereq: 4210 or consent of instructor. S/NC. W.

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 communica- tion. Observation practicum. (Student must acquire a degree of proficiency in use of manual language.) Prereq. Consent of instructor. E.

4231 Communication Processes for the Hearing Impaired II (3) Intermediate courses in manual communica- tions skills and techniques with emphasis on vocabulary development with receptive and expressive fluency. Prereq: Spec. Ed. 4230 or consent of instruc- tor.

4240 Nature of Hearing Impairments (3) Basic principles of auditory anatomy and physiology of hearing; nature and causes of hearing loss; methods and instrumen- tation for assessment of hearing level; interpretation of audiometric data and methods of screening. Prereq. Consent of instructor. (Same as Audiology and Speech Pathology 4240.) F, W, S.

4280 Curriculum Development in Elementary and Secondary Schools for the Hearing Impaired (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 set- tings. Prereq: Admission to Teacher Education. S,

4290 The Teaching of Reading to Hearing Impaired Children (3) Readiness activities, developmental approaches, theories, and specialized materials for curricula in teaching reading. Prereq: Admission to Teacher Education. W.

4310 Stuttering (3) (Same as Audiology and Speech Pathology 4310).

4320 Introduction to Clinical Practice in Speech Pathol- ogy (3) Prereq: 3240, 3250, 3310 and consent of instructor. S/NC. (Same as Audiology and Speech Pathology 4320).

4330 Clinical Practice in Speech Pathology (1-5) Prereq: 4320 and consent of instructor. (Same as Audiology and Speech Pathology 4330.) (Audiology and Speech Path. is primary department.) For letter grade only.

4340 Clinical Practice in Speech Pathology I (1-5) Prereq: 4330, 4400, and consent of instructor. (Same as Audiology and Speech Pathology 4340.) (Speech Path. is primary department.) For letter grade only.

4341 Clinical Practice in Communication Disorders in Schools (3) Prereq: 3310, 3510, 3610. Special Ed. 4000, and consent of instructor. S/NC. F, S.

4324 Seminar in Communication Disorders in Schools (3) Prereq: Audiology and Speech Pathology 3240- 3250, Special Ed. 4000, and consent of instructor. F, S.

4350-60-70 Problems in the Education of Excep- tional Children (3, 3, 3) Prereq: Consent of instructor.

4351-61-71 Practicum in Special Education (3, 3, 3) Students prepare and deliver units of instruction in special education programs. S/NC. Prereq: Admission to Teacher Education. 4351-F, W, S; 4361-E; 4371-F, W, S.

4400 Voice Disorders (4) (Same as Audiology and Speech Pathology 4400).

4440 High School Program for the Mentally Retarded (3) Trends, issues, and research relating to core and work study programs. Prereq: Admission to Teacher Education. W, S.

4520 Language-Speech Handicapped Child in the Classroom (3) Readiness and application of theory and tech- nique of communication disorders; information on referral procedures, agencies, legislation; incorporation of speech improvement-language development activi- ties into regular curriculum. For students not majoring in speech-language pathology or audiology. F, W.

4610 Nature and Characteristics of Learning and Behavior Disorders (3) Forms of academic and social- emotional characteristics of children with degrees of severity, possible causes, and relationships to each other. Relations- ships with respect to personality characteristics and developmental factors interpreted through behavioral and psychodynamic theory as well as practical situations in which learning and behavior disorders may occur. F, W, S.

4620 Education of the Emotionally Disturbed Child (3) Behavior theories, models for instruction, teach- ing techniques and materials, and teacher and student-pupil-family interpersonal relationships as basic to educational achievement. Prereq: Consent of instructor. S/NC.

4630 Practicum in Residential Settings Serving Chil- dren with Disturbing Behavior (3) Practice in scientifically identifying, observing, and recording disturbing behav- iors; initiating behavior changes according to academic and social behaviors; to performing in a tutorial capac- ity within a residential classroom; take in part in discussion and evaluation of relevant academic cur- riculum and reinforcement schedules. Prereq: 4610 and 4620 or consent of instructor.

4640 Practicum in Public School Systems Serving Children with Learning and Behavior Problems (6) Academic tutoring in a teacher/tafe capacity within regular classrooms. Particular emphasis and practice in individualizing instruction for learning and behavior problems of children with degrees of severity. Prereq: Consent of instructor. S/NC. and discussion and evaluation of relevant methods and materials unique to each teaching situation. Prereq: 4610 and 4620 or consent of instructor.

4720 Audiology II (4) (Same as Audiology and Speech Pathology 4720).

4740 Evaluating Exceptional Students (3) Explores individual and group educational testing, including theoreti- cal considerations and methods of evaluating exceptional students; introduces basic statistical concepts rela- tive to norm-referenced and criterion-referenced testing. Prereq. Psych 2240, Sp. Ed. & Rel. 3333 or consent of instructor and admission to Teacher Education. W, S.

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

4870 Student Teaching with Hearing Impaired Children (3) Supervised practicum with preschool, day school, and residential pupils. S/NC. F, W, S.

4871 Practicum with Hearing Impaired Children (6) S/NC. F, W, S.

4890 Special Student Teaching in Special Education (1-6) Application for student teaching must be filed not later than January 1 of the academic year preceding the actual experience. Prereq: 4110, 4120, 4130, 4150, 4310, 4351, 4400, 4410, 4470, 4740. S/NC. F, W.

4881 Student Teaching in Special Education (1-6) Application for student teaching must be filed not later than January 1 of the academic year preceding the actual experience. Prereq: 4110, 4120, 4130, 4150, 4310, 4351, 4361, 4740. S/NC. W.

4882 Student Teaching in Special Education (1-6) Application for student teaching must be filed not later
than January 1 of the academic year preceding the actual experience. Prereq: 4110, 4120, 4130, 4150, 4351, 4357, 4470. S/NC. F, W, S.


4924 Student Teaching of the Emotionally Disturbed (3-9) Individual tutoring and classroom observation and teaching. Prereq. or coreq: Educ. C&I 4720 or 4820; S/NC.

4930 Aural Rehabilitation: Speechreading and Auditory Training (3) (Same as Audiology and Speech Pathology 4930.)

4940 Introduction to the Verbo-Tonal System (4) (Same as Audiology and Speech Pathology 4940.)

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.

Technological and Adult Education

4341 Office Machines/Technology (3) An introductory course to prepare preservice teachers for teaching office machines. Emphasis is on knowledge of office machines for classroom use and the development of instructional skills on these machines.

4342 Word Processing Applications (3) Word processing concepts and applications; methodology for teaching word processing; hands-on experience with dictation equipment and microcomputers/word processors. Prereq: advanced typewriting coursework and permission of instructor.

4730 Design and Management of Instruction for Adults (3) Training designs, instructional techniques in workshops, seminars, and conferences for adults. S.

4740 Adult Education Program Design and Management (3) Processes of program development, with special application to adult training programs. W.

4750 Utilization of Instructional Media (3) (Same as Educ. C&I 4750 and Information Science 4750.)

4760 Adult Development and Training (3) Application of concepts of adult development to training programs for adults. F, S.

4770 Practicum in Employee Training and Staff Development (3) Assignment of duties and responsibilities of trainers in sponsored training programs for adults. May be repeated up to nine hours. Prereq: 3960 and consent of instructor. S/NC only. F, W, S.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.

Agricultural Education (056)

3450 Agricultural Experience and Future Farmers of America Programs (3) Prereq: Consent of instructor.

3460 Methods in Teaching Agriculture (3) Prereq: Consent of instructor.

3470 Program Development and Adult Education in Agriculture (3) Prereq: Consent of instructor.

3490 Organizing and Teaching Agricultural Mechanics (3) Methods of teaching agricultural mechanics to vocational agricultural students. Emphasis on special competencies needed for planning, conducting, and evaluating agricultural mechanics programs. Prereq: Agriculture 1120, Agricultural Mechanization 3110, and/or consent of instructor. 2 hours and 2 labs.

230-31-32 Problems in Agribusiness Education (1-6, 1-6, 1-6) Total not more than 9 hours.

3490-41-42 Seminar in Agricultural Education (1, 1, 1) Prereq: 4350. May be repeated for a maximum of 9 hours total. May be offered for letter grade or for S/NC.

3490-55-56 Student Teaching in Agricultural Education (9-6) Offered in offcampus centers. Application must be filed not later than final quarter of junior year. Courses must be taken concurrently. Prereq: 3450, 3460, 3470, consent of instructor. Undergraduate credit only. S/NC.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.

Business Education (207)

2300 Advanced Typewriting - Proficiency (3) Proficiency credit for students planning to certify in office technology who have typewriting experience equivalent to an advanced typewriting course. Prereq: Must have completed coursework in advanced typewriting or consent of department.

3400 Principles of Business Education (3) Historical background and present status; principles of vocational education applied to business education; guidance activities of business teachers.

3410 Pre-Student Teaching Seminar (1) Orients student teachers to the off-campus centers and the student teaching program; describes the objectives and scope of the student teaching program; meets special needs of student teachers; and raises awareness of professional liability. The pre-student teaching seminar must be completed the quarter immediately preceding student teaching. Fall quarter student teachers complete pre-student teaching seminars in spring quarter. Prereq: full admission to the Teacher Education Program. Undergraduate credit only. May not be repeated for credit. S/NC only.

3420 Teaching Basic Business Subjects (2) Materials, evaluation procedures, and recent research in subject fields.

3430 Teaching Typewriting and Word Processing (2) Materials, evaluation procedures, and recent research in subject fields.

3440 Teaching Shorthand (2) Materials, evaluation procedures, and recent research in subject fields.

3450 Microcomputer Business Programming Applications (3) An introductory course in operating, programming microcomputers. BASIC languages is used, and programming examples are oriented to business applications. Data processing and word processing applications are included. Open lab available for required hands-on experience. Letter grade only.

3460 Teaching Accounting and Data Processing (2) Materials, methods, evaluation procedures, and recent research in subject fields.

3470 Seminar in Business Education (3) Current business education problems, viewpoints of leaders in field, special attention to problems of those enrolled. S/NC only.

3490 Special Topics (1-9) Topics to be assigned. May be repeated for maximum of 9 hours total. May be offered for letter grade or for S/NC.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.

Distribution Education (273)

4410 Student Teaching in Distributive Education (9) Full-time, supervised experience in classroom teaching, preparation, classroom and case management. Prereq: 4420, 4430-31, 4440, 4470; Ed. C&I 3016-20 or 30 or VTE 4300; Educ. Psych. 3810; 4140 or equivalent. Undergraduate credit only. S/NC.

4420 School and Community Relationships for the Teacher Coordinator (6) Content dependent upon teaching assignment; human relations evolving from school, parent, business, and other community contacts. Must be taken with 4410. Undergraduate credit only. S/NC.

4430-31-32 Problems in Distributive Education (1-3, 1-3, 1-3) Selected research problems in teaching and coordinating distributive education programs. May be repeated. Maximum credit 6 hours each.

4440 Supervised Distributive Experience (3-9) Minimum 200 hours experience for each 3 credit hours in approved distributive education co-curriculum project. May be repeated for a maximum of 9 hours.

4450 Areas of Distribution (3) Marketing, product or service technology, social skills, basic skills, and distribution as these areas affect the distributive education curriculum in secondary and post secondary programs.

4460 Organization and Operation of Distributive Education Programs (3) Background and development of federal, state, and local programs; methodology for teaching and coordinating selective analytic project. May be repeated for a maximum of 9 hours.

4470 Methods and Materials in Distributive Education (3) Prereq: 4460 or consent of instructor.

4480 Coordination Techniques in Distributive Education (3) Selecting training agencies; job analysis; selecting and training the training supervisors; advisory committees; adult education and other community services. Prereq: 4460 and 4470.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.
Home Economics Education (490)

2240 Introduction to Home Economics Educational Programs (4) Introductory and exploratory experiences designed to acquaint the student with the vocational opportunities and educational programs in the field of home economics. Prerequisites: Consent of instructor. S/NC.

3240 Strategies of Teaching Home Economics (4) Teaching strategies, methods, techniques, and use of media. Field experience included. Prerequisites: 2240, F.

4240 Curriculum Development in Vocational Home Economics (4) Planning and implementing community-based home economics education programs—methods, curriculum, delivery systems, evaluation. Includes a field experience. Senior standing required. W.

4500 Field Experience in Home Economics Community-Based Programs (8) Supervised field experience in appropriate related community-based programs. Includes seminar. S/NC. S.

4509 Field Experience in Home Economics Related Occupations (4) Supervised field experience and seminars in related occupations which utilize home economics skills and knowledge. Prerequisite: Consent of instructor. S/NC. May be repeated.

4510 Teaching Occupational Home Economics (2) Methods, organization, and curriculum development for Home Economics Related Occupational programs. Prerequisites: or corequisites: 4240 and 4509.

4610 Student Teaching in Vocational Home Economics (2) Off-campus teaching centers. Prerequisites: 2240, 3240, and 4240. S/NC.

4611 Student Teaching In Vocational Home Economics (2) Taken with 4610. Prerequisites: 2240, 3240, 4240. Corequisites: 4610. S/NC.

4718-28-38 Honors: Home Economics Education (3, 3, 3) For juniors and seniors showing special ability and interest in home economics education. Prerequisite: Consent of department head.

GRADUATE

Consult the Graduate Catalog for listing of graduate level courses.

Industrial Education

1610 Engine Analysis (3) Designed to give experimental experience in automotive technology. Engine tune-up and engine overhaul techniques and procedures are studied and practiced.

1620 Graphic Communications (3) Drafting as a means of communication in technology. Orthographic and multiview drawings, perspective drawing, pictorial techniques, and applications of photography.

1630 Basic and Applied Electricity (3) Operation and characteristics of electrical systems and devices. Construction of demonstration apparatus and various electrical projects involving function of different types of circuits.

1640 General Metals (3) An introductory course dealing with processes, equipment, materials, products, and organization of metal-working industries. Involves processes in basic machining, foundry, sheetmetal, forging, heat treatment, arc and gas welding, fabrication and the use and care of common metalworking tools.

1642 Welding and Cutting Practices (3) Prerequisite: 1640.

1681 General Woodworking (3) Basic course dealing with processes, tools, equipment, products, organization of woodworking industry. Stresses importance in safety and using hand tools and basic machinery.

2611 Power Mechanics (3) Includes various prime movers, methods of utilization, distribution and transmission of power with internal combustion engines. Maintenance and repair of small engines is stressed.

2620 Industrial Graphics (3) Auxiliary views, sections, contouring, practical drafting, dimensioning, working drawings, and machine drafting. Prerequisite: 1620.

2830 Fundamentals of Applied Electronics (3) Electrical circuit analysis and introduction to semi-conductor and IC applications, including amplifiers, switching and timing circuits, and oscillators. Prerequisite: 1630.

2832 Electronics Technology (3) Basic principles and application of electronics. Undergraduate credit only.

2841 Machine Tool Processes (3) Introductory course of the function, care, set-up, operation, and theory of basic machine tools. Prerequisite: 1640.

2852 General Plastics (3) Characteristics of thermoplastics and thermal setting materials, methods of determination, and resin conversion to finished product.

2856 Furniture and Cabinet Construction (3) Comprehensive study of cases and carcass construction with emphasis placed upon furniture and built-ins. Prerequisite: 1661.

2800-01-02 Basic Experiences in Trade and Industrial Education (3, 3, 3) Methods and materials of instruction.

3080-81 Machining of Metals (3, 3) Introduction to machine shop theory and practice in using basic machine tools. Undergraduate credit only. S/NC.

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

3620 Architectural Graphics (3) Introduction to fundamentals of graphic representation and architectural design. Construction principles are stressed and working drawings for a residential building are developed. Prerequisite: 1620.

3630 Digital Electronics Technology (3) Basic principles and application of digital electronics. Prerequisite: 2630 or permission of instructor.

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. Prerequisite: 2641.

3650 Welding, Brazing, Cutting, and Related Processes (3) Various types of welding equipment and fundamental techniques of welding. Undergraduate credit only.

3651 Plastic Processing (3) Plastics production equipment and processes of plastic molding and processing of plastics. Prerequisites: 2652 and 1661.

3662 Construction Methods and Materials (3) Materials, methods, and equipment used in residential construction including location and excavation, foundation, framing, roof, interior and exterior finishes, installation, and assembly practices. Prerequisite: 1661.

3672 Graphic Arts Reproduction Processes (3) Graphic arts skills in printing and duplicating techniques and other modes of graphic communication.

3692 Photographic Processes for Planographic Printing in Industrial Arts (3) Principles of basic photography for industrial arts teachers. Includes theory and practice in SLR work, camera copy preparation, line photography, halftone photography, layout, stripping, platemaking, and offset presswork. Prerequisite: 3672.

3810 Related Science, Mathematics, and Technology in Occupations (15) Prior department approval for registration. Applicants must show evidence of bonafide occupational experience compatible with State Plan requirements. Occupational experience must be in a recognized trade area. S/NC.

3811 Manipulative Skills in Occupations (15) Prior department approval for registration. Applicants must show evidence of bonafide occupational experience compatible with State Plan requirements. Occupational experience must be in a recognized trade area. S/NC.

3812 Knowledge of Related Subjects in Occupations and Personal Qualifications (15) Prior department approval for registration. Applicants must show evidence of bonafide occupational experience compatible with State Plan requirements. Occupational experience must be in a recognized trade area. S/NC.

3820-21-22 Physical Testing Technology (3, 3, 3) Students are taught the processes of design and development of metallography, tensile and compression testing, and other destructive and non-destructive testing methods. Undergraduate credit only.

3830 History and Philosophy of Industrial Education (1)

4840-41-42 Part-time Programs in Cooperative Industrial Training (3, 3, 3) Principles of organization, methods, and materials.

3850 Shop Organization and Management (3)

3860-61 Materials and Methods for Teachers of Shop and Related Subjects (3, 3)

3870 School Shop Safety (3)

4620 Special Topics in Drafting (3) Industrial practices in specialized areas of drafting selected for the individual student. Prerequisites: 8 hours of drafting.

4630 Industrial Electronics and Digital Equipment Controls (3) Applications of digital and analog electronics in industrial and control circuitry. Emphasis is placed on circuit analysis, trouble-shooting, and synchronization. Prerequisite: 2630.

4660 Vocational Technical Laboratory Equipment Maintenance (3) Understanding of preventive maintenance, maintenance, and calibration of instruments and power equipment used in industrial education shops.

4682 Construction Processes (3) Construction processes of industry and their relationship to careers. Prerequisite: 3662.

4670 Manufacturing Processes (3) The manufacturing processes of industry and their relationship to careers. Prerequisites: 2621, 2641, 2650, 3651, or consent 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. Prerequisite: Consent of instructor.

4682 Power and Energy (3) Development, control, transmission, conversion, interrelationship of power sources; content, curriculum, and techniques of laboratory operation. Prerequisite: Consent 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. Prerequisite: Consent 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 assignments and evaluation. Prerequisite: Consent of instructor.

4801-02-03 Tools and Machine Design (3, 3, 3) Tool and machine design, calculations, design systems, and machine shop practices in metalworking and metal industries. Undergraduate credit only. S/NC.

4811 Directed Teaching (6) Guided observation and teaching in trade, industrial, and/or technical programs in secondary, adult, and post secondary, and in on-the-job industry experience. Emphasis upon instructional objectives, project selection and informational assignments and evaluation. Prerequisite: Consent of instructor.

4812 Directed Teaching (6) Observation of all types of trade and industrial classes; preparation of lesson plans and supervised teaching in at least two types. Prerequisites: 3650 or permission. Corequisites: 4210. 1 hour and 5 periods. Undergraduate credit only. S/NC.

4815 Industrial Training & Supervision (3) Principles and techniques of handling and understanding the relationship between trainers, supervisors and employees. Covering such topics as effective communication, group processes, leadership, motivation, safety and instructional skills for trainers and supervisors. Prerequisite: Senior standing.
4820 Foremanship Training by the Conference Method (3)
4830-31 Job Analysis (3, 3) Principles, practices, instructional methods.
4840 Methods of Teaching Shop and Related Subjects (3) Undergraduate credit only.
4850-51 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.
4860-61-62 Problems in Industrial Education (3, 3, 3)
4870 Numerical Control (3) Tooling, manual programming, automatic programming, automatic programming language, and use of automatic programmer as a computer. Undergraduate credit only.
4875 Microcomputer Programming for Education and Industry (3) This course is an introduction to the application of microcomputers for education and industry and the implications and impact of microcomputers on industrial education. Open lab available for required hands-on experience in operations and programming. Letter grade only.
4880-81-82 Seminar in Industrial Education (3, 3, 3) Educational innovations, current events, problems, and other topics associated with the field of industrial education.
4885 Organization and Development of Vocational Industrial Clubs of America (VICA) (3) Designed to give the industrial education teacher experiences and an understanding of the organization and operation of VICA. Prereq: Undergraduate degree and 3 year teaching experience when taken for graduate credit.
4890 New Developments in Industrial Education (3) Developments, pressing problems and recent trends in field of industrial education as presented by a coordinating instructor in conjunction with knowledgeable resource personnel.
4891 New Developments in Industrial Education (3) Developments, pressing problems and recent trends in field of industrial education as presented by a coordinating instructor in conjunction with knowledgeable resource personnel.
4895 New Developments in Industrial Education (3) Developments, pressing problems and recent trends in field of industrial education as presented by a coordinating instructor in conjunction with knowledgeable resource personnel.
4896 Internship in Training and Supervision (6,9,15) Cooperative work experience as a trainer or supervisor in an industry, business or health institution. Supervision of the experience is conducted by a person in management and the university coordinator. Seminar required. Prereq: Senior standing and VTE 4815. S/NC only.

GRADUATE
Consult the Graduate Catalog for listing of graduate level courses.