

2021-22 ACADEMIC CATALOG



## Table of Contents

Courses.....	3
Major Course Requirements.....	3
EDU 103 - Introduction to Education.....	3
EDU 108 - Introduction to Teacher Education Concentrations.....	3
EDU 188 - Field Experience Practicum: Initial (20 hours).....	3
EDU 201 - Technology in the Educational Setting.....	4
EDU 210 - Teaching and Learning I.....	4
EDU 286 - Field Experience Practicum: Elementary School (60 hours).....	4
EDU 287 - Field Experience Practicum: Middle School (60 hours).....	4
EDU 288 - Field Experience Practicum: High School (60 hours).....	5
EDU 314 - Multicultural Education.....	5
EDU 315 - The Exceptional Child and Legal Aspects of Special Education.....	5
EDU 332 - Educational Evaluation Techniques.....	6
EDU 338 - Foundations of Literacy.....	6
EDU 360 - Teaching and Learning II.....	6
EDU 370 - Teaching Literacy to All Students across Grade Levels and Content Areas.....	7
EDU 410 - Secondary Biology Teaching Methods.....	7
EDU 498 - Student Teaching/Seminar.....	7
PSY/EDU 260 - Human Growth and Development.....	7
Biology Secondary Education.....	8
BIO 103 - General Biology I.....	8
BIO 104 - General Biology I Laboratory.....	8
BIO 105 - General Biology II.....	8
BIO 106 - General Biology II Laboratory.....	9
Choose One of the Following Courses and Accompanying Lab.....	9
BIO 230 - Principles of Botany.....	9
BIO 231 - Principles of Botany Laboratory.....	9
BIO 304 - General Zoology.....	10
BIO 306 - General Zoology Laboratory.....	10
Additional Major Course Requirements.....	10
BIO 204 - Medical Vocabulary.....	10
BIO 225 - Microbiology.....	11
BIO 226 - Microbiology Laboratory.....	11
BIO 325 - Genetics and Molecular Biology.....	11
BIO 401 - Ethical Issues in Science.....	12
Supporting Courses.....	12
PSC 240 - Physics I.....	12
PSC 241 - Physics Laboratory I.....	12
CHM 170 - General Chemistry I.....	12
CHM 171 - General Chemistry Laboratory I.....	13
CHM 175 - General Chemistry II.....	13

The Bachelor of Arts in Secondary Education (120 hours) prepares students to teach in grades 8-12. Graduates will meet the requirements for secondary education certification in Kentucky. Graduates wishing to seek certification in other states should contact that state's teacher certification granting agency for information on specific requirements. Midway University offers certification in secondary education in Biology, English, and Mathematics. Biology is only available to those students in the traditional day program.

Teacher Education Orientation must be attended prior to taking EDU 103, 108, 188, and 201.

## Courses

---

### Major Course Requirements

#### EDU 103 - Introduction to Education

This course is an introduction to teaching. The role of education in contemporary society, the history of education, and the nature of teaching is explored. Must attend Teacher Education Orientation to take this class.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

#### EDU 108 - Introduction to Teacher Education Concentrations

This course is an introduction to teaching. Topics covered include: the role of education in contemporary society, the history of education, different philosophies and objectives of elementary, middle, and secondary (high) school education. The nature of the school learner, goals, academic expectations and curriculum at each level are also studied in this course. Must attend Teacher Education Orientation to take this class.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

#### EDU 188 - Field Experience Practicum: Initial (20 hours)

Candidates in Education are required to complete 200 field experience hours prior to graduation. This course represents the initial twenty field hours towards this requirement. Must attend Teacher Education Orientation to take this class.

**Grade Basis:** Letter Grade

---

## **EDU 201 - Technology in the Educational Setting**

The course will explore the expanding use of technology in the educational setting. While major emphasis will be placed on the microcomputer in both the stand-alone or network setting and the laboratory or distributed environment, other technologies such as calculators, CD-ROM, television and interactive video, and digital cameras will be considered. Technology will be approached from both the aspect of assisting the educator with the instruction of students and in preparation of presentation materials, recordkeeping, etc. Must attend Teacher Education Orientation to take this class.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

## **EDU 210 - Teaching and Learning I**

This course is a study of the theories of learning and motivation. Learning styles and appropriate corresponding teaching styles and techniques are examined. Admission to the Education program usually occurs simultaneously while taking this course. Prerequisites: EDU 103, EDU 108 and admission to the Education program.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 103 - Introduction to Education
  - EDU 108 - Introduction to Teacher Education Concentrations
- 

## **EDU 286 - Field Experience Practicum: Elementary School (60 hours)**

Candidates in the Education are required to complete 200 field experience hours prior to graduation. This course represents the sixty elementary school field hours towards this requirement. Prerequisite: admission to the Education program.

**Grade Basis:** Letter Grade

---

## **EDU 287 - Field Experience Practicum: Middle School (60 hours)**

Candidates in the Education are required to complete 200 field experience hours prior to graduation. This course represents the sixty middle school field hours towards this requirement. Prerequisite: admission to the Education program.

**Grade Basis:** Letter Grade

**Lecture hours:** 3.0

---

## **EDU 288 - Field Experience Practicum: High School (60 hours)**

Candidates in the Education are required to complete 200 field experience hours prior to graduation. This course represents the sixty high school field hours towards this requirement. Prerequisite: admission to the Education program.

**Grade Basis:** Letter Grade

**Lecture hours:** 3.0

---

## **EDU 314 - Multicultural Education**

Schools are primary agents of socialization. This is a course designed to increase the student's knowledge and awareness of diverse classroom populations. The course will focus on enhancing critical thinking skills when teaching cultural diversity and differentiation for diverse learners. It will examine learning styles affected by cultural diversity and exceptionalities such as language, disability, and the intellectually gifted, and their impacts on classroom teaching and learning. The course will introduce behaviorist and constructivist strategies for accommodating areas of exceptionalities and assessing their impacts upon student learning styles. Prerequisites: EDU 210 and admission to the Education program.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 210 - Teaching and Learning I
- 

## **EDU 315 - The Exceptional Child and Legal Aspects of Special Education**

This course is designed to provide a cross-categorical survey of knowledge concerning the identification, evaluation, education, learning characteristics, and academic/social needs of exceptional children and youth. Course content will review the categories of exceptional individuals in terms of mental, physical, and emotional characteristics. Major emphasis will be focused upon current trends, issues, legislation, and educational procedures as they relate to the integration of exceptional students in regular classroom settings. Prerequisites: EDU 103, EDU 108, EDU 210, and admission to the Education program. Field Experience required.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 103 - Introduction to Education
  - EDU 108 - Introduction to Teacher Education Concentrations
  - EDU 210 - Teaching and Learning I
-

## **EDU 332 - Educational Evaluation Techniques**

This course is a study of evaluation principles relative to academic, social, and personal characteristics of children and youth. Formal/informal evaluation and diagnosis as a basis for writing Individual Education Programs (IEPs) will be emphasized. Applied behavior analysis will be contrasted with alternative evaluation techniques. Prerequisites: EDU 315 and admission to the Education program.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 315 - The Exceptional Child and Legal Aspects of Special Education
- 

## **EDU 338 - Foundations of Literacy**

This course includes the foundational knowledge of literacy. Emphasis is on reading research, historical background, theories, and key vocabulary in the field of literacy, as well as, the influences of cultural and linguistic diversity on reading and language development. Prerequisite: admission to the Education program.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

## **EDU 360 - Teaching and Learning II**

This course is a study of the techniques of classroom management and discipline. The student develops space and time management skills, report writing skills, and testing and assessment strategies. Prerequisites: EDU 103 and EDU 210, and admission to the Education program. Field Experience required.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 103 - Introduction to Education
  - EDU 210 - Teaching and Learning I
-

## **EDU 370 - Teaching Literacy to All Students across Grade Levels and Content Areas**

The purpose of the course is to provide students with the foundations of literacy, the relationship between reading, writing, listening and speaking skills, provide a variety of instructional strategies, integrate literacy skills into the content areas, provide opportunities to view and use assessment data to inform instruction, and to review a variety of assessment tools to monitor student progress.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

## **EDU 410 - Secondary Biology Teaching Methods**

This course focuses on methods and materials for teaching science secondary levels. Included is a variety of instructional strategies, curricula, and methods for designing and implementing laboratory and field-based learning activities. The course will also teach students essential elements of science unit planning. Prerequisites: EDU 210 and EDU 360 and admission to the Education program.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- EDU 210 - Teaching and Learning I
  - EDU 360 - Teaching and Learning II
- 

## **EDU 498 - Student Teaching/Seminar**

The student is assigned to an appropriate program or educational setting for one semester. The student will spend eight weeks in each of two separate environments. Early elementary placements must span not less than three age levels. Prerequisites: senior standing, completion of professional education requirements, completion of all other coursework and formal application for student teaching.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

## **PSY/EDU 260 - Human Growth and Development**

Study of the theories and research related to human development from conception through adulthood, including the developmental stages of infancy, childhood, adolescence, young adulthood, middle adulthood, and late adulthood. The interaction among the physical, cognitive and social aspects of development as well as the major theories of development and current research are discussed.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

## **Biology Secondary Education**

### **BIO 103 - General Biology I**

Introductory course in general biology. Emphasis on fundamental principles in the scientific method, biochemistry, cell structure and function, energy pathways, genetics, taxonomy, the study of anatomy and physiology of the plant. Three lecture hours per week. A student will not receive credit toward graduation requirements for both BIO 103 and BIO 155.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

### **BIO 104 - General Biology I Laboratory**

An introductory laboratory providing studies in the scientific method, microscopy, structure and function of animal and plant cells; morphology, physiology, and taxonomy of plants; heredity. Two laboratory hours per week. Animal dissection not required. A student will not receive credit towards graduation requirements for both BIO 104 and BIO 156. Prerequisite or Corequisite: BIO 103.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- BIO 103 - General Biology I
- 

### **BIO 105 - General Biology II**

A course designed to follow BIO 103 and BIO 104. The course will place emphasis on basic taxonomy, anatomy and physiology of animals, ecology, evolution, etiology and biogeography. Three lecture hours per week. Prerequisites: BIO 103 and BIO 104.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- BIO 103 - General Biology I
  - BIO 104 - General Biology I Laboratory
-



## **BIO 106 - General Biology II Laboratory**

An introductory laboratory investigating evolutionary relationships among organisms; identifying members of the Kingdoms of living organisms; studying structure and function relationships at the cell, tissue, organ, and organism level of organization. Two laboratory hours per week. Animal dissection is required. Prerequisites: BIO 103 and BIO 104. Prerequisite or corequisite: BIO 105. Designed critical thinking course.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory
- BIO 105 - General Biology II

## **Choose One of the Following Courses and Accompanying Lab**

### **BIO 230 - Principles of Botany**

This course examines the basic principles of plant biology with emphasis on ecology; morphology; physiology and taxonomy. Three hours of lecture per week. Prerequisite: BIO 103 and BIO 104.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory

---

### **BIO 231 - Principles of Botany Laboratory**

This course is the companion laboratory course to BIO 230 Principles of Botany (lecture). Includes field and laboratory work examining the basic principles of plant biology, with emphasis on ecology; morphology; anatomy, physiology and taxonomy. Two laboratory hours per week. Prerequisites: BIO 103 and BIO 104; Prerequisite or corequisite BIO 230.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory
- BIO 230 - Principles of Botany

---

## **BIO 304 - General Zoology**

This course is a survey of the invertebrate and vertebrate phyla with emphasis on taxonomy, anatomy and physiology, behavior, ecology, life histories and phylogeny. Three lecture hours per week.

Prerequisites: BIO 103, BIO 104, BIO 105, and BIO 106.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory
- BIO 105 - General Biology II
- BIO 106 - General Biology II Laboratory

---

## **BIO 306 - General Zoology Laboratory**

A survey of the invertebrate and vertebrate fauna with emphasis on taxonomy and identification.

Special emphasis is upon dissection detailing morphological relationships. Two laboratory hours per week. Prerequisites: BIO 103, BIO 104, BIO 105 and BIO 106. Prerequisite or Corequisite: BIO 304.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory
- BIO 105 - General Biology II
- BIO 106 - General Biology II Laboratory
- BIO 304 - General Zoology

## **Additional Major Course Requirements**

### **BIO 204 - Medical Vocabulary**

This course is a study of the basic linguistic principles inherent in the specialized vocabulary of medical and scientific fields. Prerequisite: None.

**Grade Basis:** Letter Grade

**Credit hours:** 2.0

**Lecture hours:** 2.0

---

## **BIO 225 - Microbiology**

This course introduces basic microbiological principles and techniques. The course focuses on the fundamental nature of bacteria and other microorganisms; their morphology, physiology, and relationship to disease. Course consists of three lecture hours per week. Prerequisite: One University level biology course with laboratory.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

---

## **BIO 226 - Microbiology Laboratory**

This course introduces basic microbiological principles and laboratory techniques for manipulation, growth, and identification of microorganisms, especially bacteria. Course consists of two laboratory hour each week. Prerequisite: One University level biology course with laboratory. Pre or Corequisite: BIO 225.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- BIO 225 - Microbiology
- 

## **BIO 325 - Genetics and Molecular Biology**

An introduction to the principles of heredity, molecular mechanisms of gene expression, replication, transcription and translation and an overview of molecular techniques and biotechnology using microbial, plant, and animal systems. Prerequisites: BIO 103, BIO 104, BIO 105, BIO 106, CHM 170, CHM 171, CHM 175 and CHM 176; Pre or Corequisite: CHM 330 and CHM 331.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- BIO 103 - General Biology I
- BIO 104 - General Biology I Laboratory
- BIO 105 - General Biology II
- BIO 106 - General Biology II Laboratory
- CHM 170 - General Chemistry I
- CHM 171 - General Chemistry Laboratory I
- CHM 175 - General Chemistry II
- CHM 176 - General Chemistry Laboratory II
- CHM 330 - Organic Chemistry I
- CHM 331 - Organic Chemistry Laboratory I

---

## **BIO 401 - Ethical Issues in Science**

Course assists the students in values clarification and identification and problem solving involving ethical dimensions of everyday practice in scientific research, health and environmental related professions. Prerequisite: Junior standing and 12 hours of biology. Also listed as ENV 401. Designated critical thinking.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

## **Supporting Courses**

### **PSC 240 - Physics I**

Course is the first of a two-semester sequence in general physics, including mechanics, heat, thermodynamics, sound and wave motion. Four hours lecture/recitation per week is required. Prerequisite: MTH 140 or MTH 220, ACT Math score of 27 (minimum) or equivalent SAT Math score.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- MTH 140 - College Algebra
- MTH 220 - Calculus I

---

### **PSC 241 - Physics Laboratory I**

Course provides laboratory experiments to accompany Physics I PSC 240. Two hours per week are required. Concurrent enrollment in or previous completion of PSC 240 required.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- PSC 240 - Physics I

---

### **CHM 170 - General Chemistry I**

This course is the systematic study of the principles of chemistry. Topics include chemical measurement, elements, compounds, reactions, stoichiometry, thermochemistry, gas, liquids, solids, atomic structure, bonding, and descriptive chemistry of important elements and compounds.

Prerequisite or Corequisite: MTH 140 or MTH 145 or equivalent. A student will not receive credit toward graduation for both CHM 150 and CHM 170.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- MTH 140 - College Algebra
  - MTH 145 - Finite Mathematics
- 

## **CHM 171 - General Chemistry Laboratory I**

Laboratory experiments to accompany General Chemistry I (CHM 170). Two hours per week are required. Concurrent enrollment in or previous completion of CHM 170 required. A student will not receive credit toward graduation for both CHM 151 and CHM 171. Coreq: CHM 170

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

---

## **CHM 175 - General Chemistry II**

A continuation of CHM 170; topics include equilibrium, kinetics, acids, bases, solutions, oxidation, reduction, thermodynamics, coordination chemistry, qualitative analysis, nuclear chemistry and an introduction to organic chemistry. Prerequisites: CHM 170 and MTH 140 or MTH 145 or equivalent.

**Grade Basis:** Letter Grade

**Credit hours:** 3.0

**Lecture hours:** 3.0

**Prerequisites:**

- CHM 170 - General Chemistry I
  - MTH 140 - College Algebra
  - MTH 145 - Finite Mathematics
- 

## **CHM 176 - General Chemistry Laboratory II**

Course includes laboratory experiments to accompany General Chemistry II (CHM 175). Two hours per week are required. Concurrent enrollment in or previous completion of CHM 175 required. Prerequisite: CHM 171 or permission of instructor. Coreq: CHM 175.

**Grade Basis:** Letter Grade

**Credit hours:** 1.0

**Lab hours:** 2.0

**Prerequisites:**

- CHM 175 - General Chemistry II
  - CHM 171 - General Chemistry Laboratory I
- 

Last updated: 06/28/2021

**Midway University**

512 E. Stephens Street, Midway, KY 40347

1.800.952.4122