

Secondary Science Teacher Education

Biology/Chemistry majors

Revised 8-9-2018

First Semester(Fall)

MATH212 Statistics I (3)

In this course the students will study the description of sample data, numerical methods for analyzing data, normal distribution, sampling, estimation, hypotheses testing, linear correlation, regression, probability, rules of probability, discrete probability distributions and the properties, chi-square distribution, analysis of variance and nonparametric statistics. Emphasis is given to application in word problems. *Pre-requisite: Math 103 or Math 111.*

EDUC 310 Introduction to Exceptional Children(3)

This is a survey course examining exceptionalities of learning with a focus on understanding current social and educational responsibilities. *Pre-requisites: Comp I and Comp II*

EDUC321 Multi-Cultural Ed/Human Diversity (3)

This course is designed to create dialogue concerning the issues of cultural diversity in school, its impact on the learning process and the construction of human relations. Emphasis is placed on an education that is multicultural, gender fair, and disability aware. It examines issues such as racism, sexism, oppression, prejudice, and discrimination. It stresses the importance of inclusive teaching strategies.

EDUC329 Curriculum Planning & Evaluation (3)

Curriculum Planning and Evaluation prepares teacher candidates to use curriculum mapping and assessment to design curriculum to meet state standards for learning in grades 1-12.

EDUC330 Foundations of Education (3)

Foundations of Education will provide education majors in the first semester of their junior year an opportunity to view the field of education from a broad historical, social, and philosophical perspective. The goals of the course are to provide pre-service teachers with an opportunity to develop and display competency in the North Dakota principles.

EDUC300 Educational Technology (3).

This course introduces teacher candidates to the use of electronic media as it relates to classroom instruction. The course focuses on the development of an electronic portfolio and the strategies of using internet websites, web quests, and other electronic resources to enhance education. Candidates will also examine various ethical situations as well as tech do's and don'ts involving social interactions in the classroom.

Second Semester (Spring)

GEOL106 Earth thru Time/lab (4)

This course is the study of the earth through time. It's origin, history, and the evolution of plant and animal life. Laboratory work includes the study of fossils and ecological and stratigraphic processes. *Pre-requisite: GEOL 105 Physical Geology/Lab or instructor approval.*

BIOL202 Microbiology/lab (4)--*Biology majors only

This course is a study of microbes important to man including human pathogens and diseases. Laboratory work includes methods of culturing, staining, and identification of common microbe forms. *Pre-requisite: BIOL150 General Biology*

CHEM380 Environmental Chemistry/lab (4)—*Chemistry majors only

This examines the interactions of chemical substances within the environment. Water quality and air quality are of primary interest. Labs investigate the impact of chemical pollutants on the Turtle Mountain Reservation and surrounding communities.

PHYS211 College Physics I (4)

This is a general physics course for students with an algebra and trigonometry background (calculus is not required, although some derivations may be demonstrated by the instructor). It covers Newtonian kinematics, role of forces, and energy transfer. EDUC299 Secondary Classroom Management (3)

This course is designed to familiarize students with basic theories of classroom control and to give them a working knowledge of classroom management. It will focus on prevention and remediation of problems involving physical space, student behavior, mental health, and special learning needs. Students will become familiar with current teaching methods and models for secondary teachers.

EDUC320 Native Issues in Education (3)

Focuses on historical and contemporary struggles that Native people have endured in schooling. Primarily emphasizes the educational implications of this history along with an analysis of short and long-term solutions to address the academic struggles of students in elementary schools on reservations settings.

EDUC350 Practicum I (1)

Third Semester(Fall)

BIOL300/400 Biology Elective/lab(4)

CHEM300/400 Chemistry Elective/lab(4)

EDUC470 Methods of Secondary Science((3)

This course is designed to explore various pedagogical methods of science instruction in grades 5-12. Teacher candidates have opportunities to integrate real-world experiences into these methods.

EDUC236 Praxis II Content Knowledge and Principles of Learning and Teaching-Secondary(1)

This course helps teacher candidates prepare for the Praxis Subject Assessment and Principles of Learning and Teaching. This course focuses on how theory translates into practice for secondary education degrees.

EDUC360 Practicum II (1)

Practicum II requires you to spend 80 clock hours in one of the surrounding school districts in order to observe an experienced teacher and to teach small student groups so that you get the "feel" of what it's like to be a teacher. This is excellent preparation for your eventual teaching and allows you to connect the theory of your courses with the real world of teaching. Students will be required to do lessons in small group settings of two or more students. Students are encouraged to do one large group lesson if possible. A lesson or lessons from any of the curriculum areas- math, science, reading, health or PE and social studies is required to be planned and taught in an elementary classroom.

HPER210 First Aid/CPR (2)

This standard course in first aid technique deals with shock, control of bleeding, splinting, burns, SPR, and emergency procedures. Students completing this course receive a First Aid/CPR certification card.

Fourth Semester (Spring)

EDUC414/415 Student Teaching/Student Teaching Seminar

The seminar and student teaching address professional obligations, teaching challenges, and preparation for careers in teaching. The courses Ed 414 and Ed 415 are taken concurrently.

Summer courses:

Child & Adolescent Psychology (3)

A study of human development during adolescence. Covers physical, social, emotional, intellectual, moral, and spiritual domains within a multicultural context and from a global awareness perspective. Attention given to young adolescent and emerging adult issues with specific implications for teaching and learning at the elementary, middle, and secondary levels.

Pre-requisite: ENGL110 Comp I and PSYC111 Intro to Psychology