

## Syllabus: Natural History of Nebraska

**Course number: BIO 371**

**Number of credits: 3**

**Course instructor: Josef Kren, e-mail: [jokr59@yahoo.com](mailto:jokr59@yahoo.com)**

### **Description:**

Lecture series and field trips designed to provide students with an overview of natural history of Nebraska. Lectures encompass geology and geography of Nebraska through time, biodiversity of plants and animals, with a focus on the Snadhills and Platte river ecosystems. Designed for non-biology majors seeking a general understanding of nature of Nebraska and sharing environmental concerns.

### **Course Objectives:**

- Introduce the student to geology and geography of Nebraska in a historical context.
- Introduce the student to the diversity of animals and plants of Nebraska in a historical context.
- Develop a basic knowledge of the major information resources for scientific disciplines.
- Develop problem solving and communication skills essential to communication in science.
- Understand issues related to the importance of environment protection.
- Understand science in personal and social perspectives.

I will present the ‘scientific background’ for each of the covered topics and will expect all of us (the community of active learners) to get involved in discussing the topics from various points of view. I expect and greatly value **critical thinking**.

### **Course policies**

I will prepare a handout for each lecture. If a textbook is selected it would be a recommended readings.

- **Attendance:** Students are expected to attend every lecture during the course. Please contact the instructor or designed Doane college official in a case of illness or family emergency
- **Grading:** Your grade in this course will be based on:
  - a/ a research paper dealing with one of the topics we will discuss in class.
  - b/ discussion in class. I want everyone to get involved in discussion and present his/her political, religious, social, and economics view of the covered topics.

- Overall performance: 100-95 % = A+  
94-90 % = A  
89-85 % = B+  
84-80 % = B  
79-75 % = C+  
74-70 % = C  
69-60 % = D  
< 59 % = F

### Session 1:

#### **Geology of NE**

Overview

Agate fossil beds national monument

Ashfall fossil bed

### Session 2:

#### **Flora of Nebraska**

Shortgrass prairie

Tallgrass prairie

The national forest

### Session 3:

#### **Fauna of Nebraska**

Invertebrates

Vertebrates

Fish, reptiles

Birds, mammals

### Session 4:

#### **Water in Nebraska**

Rivers

Lakes

Ogallala Aquifer

Rainwater basin

### Session 5:

#### **The Sandhills**

**The Sandhill Crane migration**

### Session 6:

**Spring Creek Prairie (field trip)**

Session 7:

**Nine Mile Prairie (field trip)**

Session 8:

**Environmental issues in Nebraska  
Places of interest in Nebraska**