Course Syllabus: Life/Earth Science

Kimbell School of Geoscience

GNSC 1104 Section 201

Spring 2022

Contact Information

Instructor: Dr. Jonathan D. Price
Office: Bolin 102
Office hours: MW 10-11a | M 1p-3p | F 8-9a by appointment
Office phone: (940) 397-4288
ZOOM meeting id: (940) 518-1980
E-mail: jonathan.price@msutexas.edu (best practice is to email me *through* D2L)
Lecture: MWF, 09:00 am-09:50 am Bolin 127

Course Description

Life/Earth Science is a college-level course that introduces the prevailing concepts and useful concepts of geology and biology in a fundamental fashion. The course provides student opportunities to…

- Explore the nature of scientific inquiry
- Examine the interrelationships of life and Earth
- Apply concepts of physics and chemistry to natural systems
- Evaluate attributes of common Earth materials
- Learn Earth processes over a range of scales
- Understand the gross characteristics of organisms
- Assess interrelationships among living systems
- Address anthropogenic roles in changing environments

The class is curriculum specific to those interested in EC-6th grade education, although other enrollees may take the course with prior advisory approval. The course is designed to impart background information crucial to a rudimentary understanding about the current understanding of our natural environment.

Textbooks

Required

- *Science Matters: Achieving Science Literacy*, 2nd Ed., ISBN:978-0-307-45458-4
- Top Hat subscription

Suggested

- *Conceptual Integrated Science: An introduction to the sciences*, 2nd Ed., ISBN: 9780321

Instructional Materials

- Dedicated scientific calculator
- Ruler (with metric scale), drawing tools
- Access to a phone, tablet, or laptop during participation activities and quizzes
- Access to a computer outside of class

Lab Assistance

Lab teaching assistant: Mr. Wesmond Williams

Student Handbook

Refer to: Student Handbook

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

Plagiarism

Plagiarism is the use of someone else's thoughts, words, ideas, or lines of argument in your own work without appropriate documentation (a parenthetical citation at the end and a listing in "Works Cited")-whether you use that material in a quote, paraphrase, or summary. It is a theft of intellectual property and will not be tolerated, whether intentional or not.
Plagiarism may result in an F for the class or more extensive consequences.

Grading

Table 1: Points allocated to each assignment

Components	Points
Quizzes (Top Hat)	10 %
Participation (Top Hat)	10 %
Midterm Exam	11 %
Journal assignment	12 %
Final Exam	12 %
Lab Assignments	30 %
Laboratory midterm	7 %
Laboratory final	8 %

Table 2: Total points for final grade.

Grade	Percentage
A	>90%
B	80-90%
C	70-79%
D	60-69%
F	<60%

Submissions

Submission instructions will generally be given for each assessment. Lab materials may be submitted in person to your individual lab instructor. Journals are to be submitted using D2L, and in-class electronic assessments will be collected using Top Hat.

Quizzes

We will have a quiz approximately every second Friday. Quizzes are timed at 10 minutes or longer at the discretion of the professor. There are six on the proposed schedule. Instructions for completion will be given during each quiz.

Projects Required

There is a journal opportunity for the class. This are assigned at an appropriate point in the lecture schedule (generally at or after 7 weeks). Details will be provided on D2L.

Mid-Term Exam

The Mid-term exam will evaluate student comprehension of material up to the day of the examination. The tentative schedule for covered topics and date is provided below.

Final Exam

The final exam will be a comprehensive, two-hour examination at the scheduled time for the class (see schedule below).

Extra Credit

There will be a handful of opportunities for additional, non-required credit.

Late Work

Execution of this class will require a focused and directed effort on the part of your instructors to complete grading and input grades on a timely manner. As such, late work penalizes the rest of the class. Late work will only be accepted if the professor (and TA in the case of lab work) are notified before it is due and agree to accept it as late. Generally, if the request is approved, you have one additional week to submit the work for partial credit.

Make Up Participation/Quizzes/Tests

An excused absence is required to make up. Excuse requests are typically accepted provided that the professor is notified prior to the absence. Excuses are rarely issued if the professor is notified after the absence. Excuse requests need not be elaborate; contact the professor by email or through D2L.
There is no makeup for the participation exercises; you must be participating in the class to complete these.

For quizzes, the professor will typically take the next quiz grade and apply it to your missing grade.
For examination, the student must work out with the professor an agreeable date and time for the makeup prior to the exam.

Top Hat

Extensive Top Hat is an external tool that facilitates participation and engagement, and enrollment is an added requirement for the class. We will be using Top Hat and the Top Hat test tool (https://tophat.com/). This requires a subscription to the pro version (without add ons). Please note that this tool is typically used in GNSC 1204 as well.

Top Hat is separate from D2L. It is important that when you register for Top Hat you use the first and last names used on D2L to correctly transfer your grade. Please also use an email address that you check frequently.

Attendance

Attendance for lecture is required. Lab attendance is also required for completion of this class. Most sessions will have a supervised activity that requires your full, prepared attention. Preparation includes comprehension of the lab book and participation of online activities. If you fail to attend and complete more than 2 laboratory sessions, you will be either be dropped from the class or you will receive a failing grade.

During in-building participation, students must comply with any of MSU's requirements for healthy and safety.

Illness: If you are feeling ill, then you shouldn't be on campus. If illness interferes with your participating in remote learning, then you should do the following:

1. Email the professor through D2L; use "ill" in the subject line
2. Contact the health center or your health provider

See notes regarding COVID-19 below.

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Learning environment

Dr. Price is committed to providing an equitable and inclusive forum for learning and endeavors to keep this class an open, supporting, and safe space for all students. He is available and willing to address you issues and concerns. He also wants you to be aware of the following supporting structures that assist in this environment.

To help achieve the vision of "STEM leadership--Diverse scholarship," the McCoy College of Science, Mathematics, and Engineering (MCOSME) students benefit from the numerous offices and student services available on the MSU campus. Links to resources and information are here: https://msutexas.edu/academics/scienceandmath/student_resources.php.

Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to Disability Support Services.

University Policies

Campus Carry Rules/Policies
Refer to: Campus Carry Rules and Policies

Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University Undergraduate Catalog

Important Dates

Last day for term schedule changes: Jan 13
Deadline to file for May graduation: February 14
Last Day to drop with a grade of "W:" March 21 – 1st day after Spring Break

Refer to: Drops, Withdrawals & Void

Pandemic

The pandemic remains a concern. The instructor would appreciate your thoughtful engagement of the class, including respecting the health, safety, and concerns of your colleagues.

As always – illness is an excused absence. So is isolation and quarantining. Please report positive tests and exposures to COVID-19 to https://cm.maxient.com/reportingform.php?MSUTexas&layout_id=9. I will work with you to stay current in this class in the case of absences.

Distancing, masks, hygiene and testing are strongly encouraged when area infection rates are high. We're not a big class, thankfully reduces our risk of serving as disease vectors.

Vaccination is key to disarming the virus. Vaccines remain free and widely available. The vaccines are safe and effective and will protect the student and other members of the MSU Texas community. The following are suggested resources:

- Vinson Health Center by appointment (940-397-4231).
- Local retail pharmacy location such as CVS, United Supermarkets and Market Street, and Walgreens.
- Your primary care physician.
- Find a vaccine location statewide: COVIDvacine.texas.gov or call 833-832-7067 for assistance.

Details about the current status of campus and responses to the pandemic are found at https://msutexas.edu/coronavirus/index.php.

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor. This is not business-as-usual this semester…anticipate thoughtful changes as we move forward.

Proposed Topic Schedule

GNSC 1104 Spring 2022					
Wk	**Day**	**Date**	**Topic**	**Text**	**Lab**
1	M	1/10	Introduction	none	none
1	W	1/12	Science and the planet	none	none
1	F	1/14	Measuring nature	none	none
2	W	1/19	Dynamic planet-shape	13	none
2	F	1/21	Dynamic planet-structure	13	none
3	M	1/24	Dynamic planet-tectonics	13	Topography
3	W	1/26	Dynamic planet-deformation	13	Topography
3	F	1/28	Dynamic planet-volcanoes	13	none
4	M	1/31	Dynamic planet-past	13	Minerals
4	W	2/2	Earth materials - minerals	14	Minerals
4	F	2/4	Earth materials - minerals	14	none
5	M	2/7	Earth materials -igneous	14	Rocks
5	W	2/9	Earth materials-sedimentary	14	Rocks
5	F	2/11	Earth materials-metamorphic	14	none
6	M	2/14	Resources and concerns	14	Streams
6	W	2/16	Water-Oceans	14	Streams
6	F	2/18	Water-Streams	14	none
7	M	2/21	Water-underground	14	Groundwater
7	W	2/23	Atmosphere-Climate	14	Groundwater
7	F	2/25	Atmosphere-Weather	14	none
8	M	2/28	Connections	none	Lab Midterm
8	W	3/2	Exam 1	13-14	Lab Midterm
8	F	3/4	Life components	15	none
9	M	3/7	Life components	15	Geology and food
9	W	3/9	Cells	15	Geology and food
9	F	3/11	Cells	15	none
10	M	3/21	Cells	15	Osmosis and diffusion
10	W	3/23	Kingdoms and domains	15	Osmosis and diffusion
10	F	3/25	Kingdoms and domains	15	none
11	M	3/28	Kingdoms and domains	15	Biodiversity
11	W	3/30	Genes	16	Biodiversity
11	F	4/1	Genes	16	none
12	M	4/4	Reproduction	16	Demographics
12	W	4/6	Reproduction	16	Demographics
12	F	4/8	Reproduction	16	none
13	M	4/11	Biotechnology	17	Stream ecology
13	W	4/13	Evolution	18	Stream ecology
14	M	4/18	Evolution	18	Carbon budgets

Wk	Day	Date	Topic	Text	Lab
14	W	4/20	Life on the past Earth	18	Carbon budgets
14	F	4/22	Ecosystems	19	none
15	M	4/25	Ecosystems	19	Lab Final
15	W	4/27	Sustainability	19	Lab Final
15	F	4/29	Conclusion	none	none
F	M	5/2	Final exam 8:00 AM	13-19	none