



Course Syllabus: Clastic Depositional Systems and Sequence Stratigraphy McCoy College of Science, Mathematics, and Engineering

Lecture - GEOS 5323 Section 101 Monday, Wednesday, Friday 3:00-3:50 pm | Bolin 117 Lab – GEOS 5323 Section 11A Thursday 3:00-4:50 pm | Bolin 115

Course D2L Site

Contact Information

<u>Instructor: Dr. Steven J. Rosscoe</u> <u>Office: Pierce Hall, Room 204</u> Office hours: MWF 10-10:50 am, 12-12:50 pm | By Appointment |Zoom Meeting Link <u>Office phone: (940) 397-4448 (Note: E-mail is the preferred method of communication)</u> E-mail: steven.rosscoe@msutexas.edu

Course Description

This course covers all aspects of terrestrial and marine siliciclastic depositional systems and stratigraphy. The course will discuss characteristics of geologic and modern systems across a range of environments (deltas, lakes, shorelines, barrier islands, alluvial and submarine fans, turbidite systems, etc.). Students will develop an understanding of clastic sequence stratigraphy, identifying cycles, and the mechanisms responsible for deep-water sedimentation. Other topics include: paleoclimate reconstruction, gravity flow processes, water-rock interactions, subsurface applications, and siliciclastic petrology. Lecture will be supplemented by applied learning with thin sections, core, and hand samples. Concepts will be reinforced with advanced readings and discussions of topics related to siliciclastic depositional systems, including how sequence stratigraphic methods are used in petroleum migration.

Course Learning Objectives

The successful completion of this course will be evaluated around the following course learning objectives. Each of these course learning objectives include aspects of both content knowledge and skills development. Students will:

- Recognize textural, stratigraphic, and mineralogical characteristics of siliciclastic sediments and rocks in all terrestrial and marine depositional environments.
- Recognize distinctive sedimentary stratigraphic sequences and facies relationships and their relationship to modern depositional systems and their ancient analogs.

- Write analytical papers, with appropriate scientific quality illustrations, of significant clastic deposits in West-Central Texas studied through extensive laboratory and field exercises.
- Develop proper laboratory skills and analytical techniques that are essential to the study of the siliciclastic depositional systems (sieve analysis, textural analysis, paleoenvironment interpretation, correlation, and sequence and parasequence recognition and interpretation).

Textbook & Materials

Required Textbooks:

• There is no required textbook for this course, readings (PDFs) will be provided over the course of the semester for discussion related to the class material.

Materials for Lab Work (Used in Lab):

The lab typically has rulers and scissors available. You may wish to have your own, as well. The remaining materials are essential for any geologist working in the laboratory setting and will be needed in lab activities.

- Mechanical Pencils (white erasers are best)
- White Block Eraser
- Colored Pencils (at least basic colors, but a larger variety is useful)
- Calculator (scientific or graphing yes, the one on your phone can work for most applications).

Required Computer Applications (Required):

- Microsoft Office: Word, PowerPoint Free Access to Microsoft Office 365
 - Required for completion of course laboratory activities.
- PDF Reader
 - PDFs are used to provide some course materials; a browser PDF reader or Adobe Acrobat will be necessary to view them.

Field Equipment (Used in the Field):

The following materials are necessary tools when any geologist is working in the field. If you don't have this equipment, there are usually some to loan, but ideally you should begin gathering your own field equipment now! I will provide links to these products on Amazon in D2L, if you are looking to purchase.

- Safety Vest or Safety Shirts
- Rite in the Rain Field Notebook (field pattern recommended)
- Rock Hammer (rock pick or brick hammer)
- Metric Measuring Tape (either only metric or both standard and metric)
- Magnifying Lens (AKA hand lens or loop)

Grading

The formal grade for this course is determined by your performance on lecture exams, podcast project, laboratory activities, and laboratory quizzes.

Table 1: Points allocated to each assignment type. For more details see assignment descriptions below.

Assignments (Quantity)	Points
Lecture Examinations (3)	300
Laboratory Exams (2)	100
Lab Activities (Best 10)	200
Field Study Project	100
Total Points	700

Table 2: Total points for final grade.

Grade	Points
А	630 and up
В	560 to 629
С	490 to 559
D	420 to 489
F	Less than 420

Lecture Examinations (Online)

There are three main units of the lecture portion of the course. The first is a focus on sedimentary processes (approximately 6 weeks), the second is depositional systems (approximately 5 weeks), and the third is stratigraphy (approximately 4 weeks). Examinations are given on D2L. The examination is released after the last lecture of the unit. You will have one week (or until the final exam block for exam 3) to complete the examination.

Exams consist of seventy multiple choice questions (1 point each) and three short answer questions (10 points each). Multiple choice questions require the best possible answer to the question. The short answer questions are designed for you to demonstrate the knowledge you have gained in the course. Two of these questions will center on you explaining a concept as completely as possible. The third question will ask you to apply what you have learned to explain a real-world example.

Table 3: The table below shows the due date/time, and topic for each exam.

Examination	Due Date/Time
Lecture Exam 1: Terrestrial Clastic Depositional Systems	Sunday, October 20, 2024 – 11:59 pm
Lecture Exam 2: Marine Clastic Depositional Systems	Sunday, November 10, 2024 – 11:59 pm
Lecture Exam 3: Clastic Sequence Stratigraphy	Sunday, December 11, 2024 – 11:59 pm

Laboratory Examinations (In Lab)

Laboratory examinations split the lab portion of the course in half. The lab midterm covers the material from labs 1-5, and the lab final covers labs 6-10. These examinations are specimen and concept based. You will be provided with materials and asked to analyze them appropriately using the skills and techniques you have learned in the lab. There will be ten to twenty specimens on the examination, and you will have the full one-hour-and-fifty-minute lab period to complete the examination. Each specimen will have a variety of questions associated with it (multiple choice, short answer, and even short essays).

Lab Exam	Due Date/Time
Midterm Laboratory Exam (Labs 1-5)	Thursday, October 10, 2024 – 11:59 pm
Final Laboratory Exam (Labs 6-10)	Thursday, December 05, 2024 – 11:59 pm

Lab Activities (In Lab)

Each week, according to the lab schedule in the syllabus, you will be given a laboratory activity to complete. Each lab period will start with an introduction of the relevant material and then you will work to complete the laboratory activity. You should work in pairs to complete the activity. Discussion about lab specimens can help increase your understanding of the topic. The laboratory period is your time to have the instructor there to provide assistance as you need it. You have until the start of the next lab period to complete the laboratory activity. Late or missing labs slow the grading process, so be sure to have the labs completed by the start of the next laboratory period. The lab room is open and accessible between 8 am and 5 pm every day. You are welcome to use it if there are no other classes in it at the time.

Field Study Project (Field, Outside of Class)

Fieldwork and the associated lab work and presentation of field data and interpretations are the nuts and bolts of the geosciences. Whether you want to be a geochemist, volcanologist, paleontologist, the skills of sedimentary and stratigraphic fieldwork are essential. In this course we will complete a field investigation that will be the basis upon which you will write a comprehensive paper on the on the field locality selected for the semester.

The details for the field project vary. Each offering of this course takes on a different project. But the overall requirements remain the same. There are two field days that you must attend and take detailed field notes. Your field notes will be submitted with your project at the end of the semester. Approximately mid-way through the semester you will submit a rough draft of the geologic setting and results sections of your paper. This will be edited and returned to you to help you prepare your final paper. The final paper will be submitted at the end of the semester.

Grade Element	Point Value	Due Date
Rough Draft (Upload in D2L)	20 points	Friday, October 24, 2024 – 11:59 pm
Field Notes (Upload in D2L)	20 points	Friday, December 6, 2024 – 11:59 pm
Final Paper (Upload in D2L)	60 points	Friday, December 6, 2024 – 11:59 pm

Table 5: Grade Distribution for the Field Project

Extra Credit (Online)

There is no extra credit for this course. Mastering this material is imperative to your becoming a geoscientist. No other material or activities can supplement the official course assignments and assessments.

Late Work

This is an online course where each assignment has a week or more of lead time before their due date. ***No late work will be accepted.** Missed labs and examinations may be made up with a legal, paperdocumented, excuse.

Make-Up Work/Tests

For legal, paper-documented excuses make-ups for labs and examinations can be completed. Makeup work should be arranged in advance wherever possible. The instructor will give you a new deadline that is reasonable for the course timeline. ***No make-up work (lecture or lab) will be allowed beyond 10 days past the original deadline.**

The group project cannot be made-up as it requires active participation in the group throughout the semester. While your group should work with your schedule to include you and reschedule meetings due to illness, if you do not participate at all you will not be able to make-up the assignment.

<u>Note</u>: You must complete the assignments, laboratories, and examinations presented in this syllabus. No substitute assignments will be allowed to compensate for poor performance or missed deadlines.

Instructor Class Policies

The following policies are the policies that are integral for our successful completion of the course and should be read thoroughly. If you have any questions, please see the instructor.

Academic Honesty

Academic dishonesty is considered cheating, collusion, and plagiarism. Any unauthorized assistance during the completion of assignments, using on aids beyond those authorized for an assignment, or the use of other people or services to complete assignments is considered cheating. Working with others in a way that is not authorized by the instructor to complete assignments is considered to be collusion. Plagiarism is the use of another person's materials (by paraphrase or direct quotation) without giving them full and clear acknowledgement. The use of material prepared by another person or agency selling term papers and academic materials is also considered plagiarism.

The use of any artificial intelligence (AI) in completing course assignments is NOT allowed. AI in this sense is any technology that summarizes, writes, or answers questions on its own. Recent court rulings have allowed lawsuits to go forward against Chat GPT and other AI operators because it directly plagiarizes the use of others. College is about you learning to write, you developing your voice, and you learning how to process, summarize, and properly cite information. Any use of AI is considered a violation of this academic honesty policy.

If a student is caught cheating, colluding, or plagiarizing on any assignment the assignment grade will automatically be a zero. Two or more violations will result in failure of the course.

Classroom Civility (IMPORTANT)

Learning, especially in science, can be a very challenging process. Learning often requires putting yourself out there and being vulnerable. Science also happens to be at the forefront of information which may conflict with personal beliefs. Your beliefs are yours and nothing will change that, though those beliefs may not get you credit on the exam. We are focused on science and what understandings have been developed in the field. Additionally, no scientist thinks the same way as every other scientist. To develop the best understandings of our universe, we must seek input from all people in the field.

In my classroom, we strive to create an environment where everyone is respected and valued for who they are. We are all here together, learning together, and working toward the same goal. This is not a place for hate of any kind. The use of derogatory language, hate speech, or violence is absolutely unacceptable in this classroom and in any setting related to the course. Learn to work with and value all people. Be civil and treat each other with respect. Do your best to listen to each other, in any conversation. Use of derogatory language, hate speech, or violence will result in removal to the classroom or the course.

Dr. Rosscoe (me) is available to help if you have any concerns or questions about building a positive classroom environment. The campus also has numerous resources related to a safe and welcoming experience at MSU. Also, don't forget the MSU Safety App.

- MOSAIC Cross Cultural Center: Works to create a campus community where all students feel included, affirmed, and successful.
- <u>Title IX Misconduct</u>: Dating violence, sexual assault, sexual harassment, stalking, and other forms of sexual misconduct.
- <u>Bias Incident Reporting</u>: Bias and hate incidents related to race, gender, or sexual identity.
- <u>Disability Grievance Procedures</u>: Discrimination on the basis of disability.

COVID-19 and Illnesses

Since COVID-19, classroom health has been a necessary and probably long overdue focus. While there are no longer COVID-19 policies in place by the university the following procedures are scientific best practices. These same principles can be applied to any viral infection (flu, cold, etc.).

- If you become ill and have symptoms, get tested.
- If you are positive for COVID-19, stay home. It's good for your recovery and good for protecting your peers.
- Illness happens and if you absolutely must be in public, wear a mask. Even a cloth mask reduces the chance you will spread the illness to others.
- If you stay home or miss assignments, be sure to get a Doctor's note and excuse. It lets me help you make things up.

In the case of long-term illnesses or medical situations that will prevent you from attending classes regularly, contact the professor (me) as soon as possible. We will work together to make sure that you can succeed, just make sure it's Doctor-documented. I can't do much to help, if I don't know until the day before the semester ends.

Electronic Devices

Use of electronic devices for taking notes is allowed in my classroom. Recording (audio or video) is not allowed unless approved by the instructor for educational purposes. The use of social media or streaming anything is not an appropriate use of technology during class. If your use of technology is non-educational or is disruptive to your peers, you will be asked to leave.

Course Grade and Grade Bumps

In my courses, a grade is earned by accumulating points throughout the semester. The grade you earn in the course is determined by the number of points you earn through the timely completion of assignments. As such, at the end of the semester, there are no grade bumps given out. Do not ask how or if you can be bumped up to the next letter grade, if you haven't earned the points, you will not be able to get that grade.

If you believe there to be an error in the calculation of your grade, whether it is on a specific assignment or the whole course, feel free to ask me to re-evaluate and double check. I will do so happily. For specific assignments, be prepared to give me specific reasons you feel the grade is wrong (which wrong answer do you think was right, etc.).

Desire-to-Learn (D2L)

Extensive use of the MSU D2L learning management system is required in this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into D2L through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Computer Requirements

Taking this course involves the completion of all lecture exams, reading quizzes, and discussions in the course learning management system (D2L). This class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. ***Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings. Computers are available on campus in various areas of the buildings as well as the Academic Success Center. *Your computer being down is not an excuse for missing a deadline!!** There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into D2L.

Inclement Weather Policy

In cases of extreme weather events that delay or close campus and where those delays or closures impact the course:

• If the closure or delay includes lecture meeting time, the lecture will not meet and the lecture schedule for the semester will be modified.

- If the closure or delay includes a laboratory meeting time, the laboratory will not meet and all remaining laboratory meetings for the week will be cancelled to keep the lab sections on the same schedule. Lab due dates and lab quiz dates will be adjusted.
- If due dates are impacted by the delay or closure, they will be rescheduled.
- All changes to the course schedule will be posted, in writing, in D2L.
- NOTE: Because all students do not have equal or reliable access to technology and internet, especially in times of inclement weather, we WILL NOT shift to online in cases of inclement weather.

University Policies and Information

The following information and policies apply to this course. Please read each of these policies and ask your instructor if you have any questions.

Important Dates

- First Day of Classes: August 26, 2024
- Last Day to Change Schedule and Late Registration: August 29, 2024
- Labor Day Holiday: September 2, 2024
- Deadline to File for December Graduation: September 23, 2024
- Last Day for a Grade of W: November 25, 2024
- Thanksgiving Holiday: November 27-29, 2024
- Final Exams Begin: December 14, 2024

<u>Attendance</u>

Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records on a daily basis. The instructor must give the student a verbal or written warning prior to being dropped from the class. Instructor's records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

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 a 100% 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) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

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 <u>Disability Support Services</u>.

Campus Carry Rules/Policies

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit <u>Campus Carry Rules and Policies</u>

Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit <u>Safety</u> / <u>Emergency Procedures</u>.

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by MSU. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

Grade Appeal Process

Following the appropriate procedure for grade appeals requires you to speak to your instructor first, so talk to your instructor. Students who wish to appeal a grade should consult the Midwestern State University <u>Undergraduate Catalog</u>.

Lecture Topic Schedule for Fall 2024

The following is the schedule for the lecture topics we will study during the semester. This schedule will vary over the semester as some topics may move quicker or slower than expected. Readings are indicated from the required textbooks are indicated where appropriate. Note: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

Week	Dates	Monday Topic	Wednesday Topic	Friday Topic
1	Aug 26-30	Introduction	Fluvial Systems	Fluvial Systems
1 Aug 20-50		No Readings	No Readings	No Readings
2	Sept 02-06	Labor Day Holiday	Fluvial Systems	Fluvial Systems
Ζ	Sept 02-06	No Classes	Reading 1	Reading 1
3	Sept 09-13	Fluvial Systems	Fluvial Systems	Fluvial Systems
5	Sept 09-15	Reading 2	Reading 2	Reading 2
4	Sept 16-20	Alluvial Systems	Alluvial Systems	Alluvial Systems
4	Sept 10-20	Reading 3	Reading 3	Reading 3
5	Sant 22 27	Alluvial Systems	Alluvial Systems	Alluvial Systems
5	Sept 23-27	Reading 4	Reading 4	Reading 4
6	Sept 30 –	Glacial Systems	Glacial Systems	Glacial Systems
0	Oct 04	Reading 5	Reading 5	Reading 5
7 0	Oct 07-11	Lacustrine Systems	Lacustrine Systems	Lacustrine Systems
/	Oct 07-11	Reading 6	Reading 6	Reading 6
8	Oct 14-18	Coastal Systems	Coastal Systems	Coastal Systems
0	000 14-18	Reading 7	Reading 7	Reading 7
9	Oct 21-25	Coastal Systems	Coastal Systems	Coastal Systems
9	000 21-25	Reading 8	Reading 8	Reading 8
10	Oct 28 –	Open Marine Systems	Open Marine Systems	Open Marine Systems
10	Nov 01	Reading 9	Reading 9	Reading 9
11	Nov 04-08	Open Marine Systems	Open Marine Systems	Open Marine Systems
11	1000 04-08	Reading 10	Reading 10	Reading 10
12	Nov 11-15	Sequence Stratigraphy	Accommodation Space	Sea Level Controls
12	100 11-13	Reading 11	Reading 11	Reading 11
13	Nov 18-22	Sediment Supply	Sequences & Cycles	Systems Tracks
15		Reading 12	Reading 12	Reading 12
14	Nov 25-29	Wheeler Diagrams	Thanksgiving Holiday	Thanksgiving Holiday
14		No Reading	No Classes	No Classes
15	Dec 02-06	Marine Sequences	Terrestrial Sequences	Correlating Sequences
10		Reading 13	Reading 13	Reading 13

Laboratory Activity Schedule For Fall 2024

The following is a table of all laboratory activities required for the successful completion of this course. Pre-laboratory readings and activities are indicated for each topic, if required. All laboratory activities are due by the start of the next lab meeting. NOTICE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

Week	Date	Tuesday Labs	
1	Aug 29	No Lab Meetings	
		First Week of Classes	
2	Sept 05	Lab 1: Gathering Grain-Size Data	
		Handouts	
3	Sept 12	Lab 2: Presenting Grain-Size Data	
		Handouts	
4	Sept 19	Lab 3: Interpreting Grain-Size Data	
		Handouts	
5	Sept 26	Lab 4: Grain-Shape Analysis	
		Handouts	
6	Oct 03	Lab 5: Mineral Compositions	
		Handouts	
7	Oct 10	Midterm Laboratory Examination	
		Covering all material from Labs 1-5.	
8	Oct 17	Lab 6: Coarse-Grained Clastic Sedimentary Rocks	
		Handouts	
9	Oct 24	Lab 7: Sandstones I: Textures	
		Handouts	
10	Oct 31	Lab 8: Sandstones II: Composition	
		Handouts	
11	Nov 07	Lab 9: Fine-Grained Clastic Sedimentary Rocks	
		Handouts	
12	Nov 14	Lab 10: Clastic Sedimentary Rocks in Core Analysis	
		Handouts	
13	Nov 21	Lab 10: Clastic Sedimentary Rocks in Core Analysis	
		Handouts	
14	Nov 28	No Lab Meetings	
		Thanksgiving Break	
15	Dec 05	Final Laboratory Examination	
		Covering all material from Labs 6-10.	

Field Activity Schedule For Fall 2024

The following is a table of all the field activities required for the completion of this course. There will be two field days this semester. You are required to go to one of these field days to collect material for your field projects. These trips are where you are taught how to properly and safely use field equipment. They are also where you will collect the necessary data to effectively complete your field study project for the course.

Field Trip	Date	Destination	Objectives
Group 1	Saturday 09/14/2024	Vera, Texas	Measured sections, geophysical data collection, and sample collection.
Group 2	Sunday 09/15/2024	Vera, Texas	Measured sections, geophysical data collection, and sample collection.

All Course Due Dates in Chronological Order

The following table lists the due dates of each assignment in the course. All items are due at 11:59 pm on the date for which they are due. NOTICE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

Due Date	Assignment
Thursday 09/12/2024	Lab 1: Gathering Grain-Size Data
Thursday 09/19/2024	Lab 2: Presenting Grain-Size Data
Thursday 09/26/2024	Lab 3: Interpreting Grain-Size Data
Thursday 10/03/2024	Lab 4: Grain-Shape Analysis
Thursday 10/10/2024	Lab 5: Mineral Composition
Thursday 10/10/2024	Midterm Laboratory Examination
Sunday 10/20/2024	Examination 1: Terrestrial Clastic Depositional Systems
Thursday 10/24/2024	Lab 6: Coarse-Grained Clastic Sedimentary Rocks
Friday 10/24/2024	Rough Draft of Geologic Setting and Results Section Due
Thursday 10/31/2024	Lab 7: Sandstones I: Textures
Thursday 11/07/2024	Lab 8: Sandstones II: Composition
Sunday 11/10/2024	Examination 2: Marine Clastic Depositional Systems
Thursday 11/14/2024	Lab 9: Fine-Grained Clastic Sedimentary Rocks
Thursday 12/05/2024	Lab 10: Clastic Sedimentary Rocks in Core Analysis
Thursday 12/05/2024	Final Laboratory Examination
Friday 12/06/2024	Final Field Project Due
Wednesday 12/11/2024	Examination 3: Clastic Sequence Stratigraphy