Name:  R. LaRell Nielson  
Department:  Earth Sciences and Geologic Resources  
Email:  rnielson@sfasu.edu  
Phone:  (936) 468-2248  
Office:  304 Miller Science  
Office Hours:  
    M and W 9:00 - 11:00 AM  
    M 5:30- 6:30 PM  
    T and R 8:30-9:30 AM  
    T and R 10:30-11:30 AM  
    Other times by appointment  

Class meeting time and place: 9:30 AM -10:20 TR, 326 Miller Science Building  

Text:  
    Sedimentary Petrology by Maurice E. Tucker  

Course Prerequisites  
    GEOL 2341 Mineralogy  

Course Requirements:  
Quizzes: 10 Lecture quizzes or as many as given  
Exams: midterm and final  
Field Trip: Llano, Texas – April 18-21, 2024  

Course Calendar:  

<table>
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
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<tbody>
<tr>
<td>01/18</td>
<td>Introduction</td>
<td>Chapter 1</td>
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<tr>
<td>01/23</td>
<td>Sedimentary process</td>
<td>Chapter 2</td>
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<tr>
<td>01/25</td>
<td>Sedimentary Textures</td>
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<td>01/30</td>
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<tr>
<td>02/03</td>
<td>Sedimentology</td>
<td>Chapter 2</td>
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<tr>
<td>02/06</td>
<td>Sedimentary Structures</td>
<td>Chapter 2</td>
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02/08 Sedimentary Structures Chapter 2
02/13 Weathering Processes Chapter 2
02/15 Weathering Products Chapter 2
02/20 Coarse Clastic Textures Chapter 2
02/22 Classification Clastic Rock Chapter 2
02/27 Conglomerate - Breccia Chapter 2
02/29 Sandstone Composition Chapter 2
03/05 Diagenesis of Sandstones Chapter 2
03/07 Mudrocks Chapter 3

03/12 Spring Break
03/14 Spring Break

**03/19 Clastic Rock Exam (Midterm)**
03/21 Origin of Limestone Chapter 4
03/26 Origin Carbonates Chapter 4
03/28 Intro to Carbonate Rocks Chapter 4
04/02 Carbonate Diagenesis Chapter 4
04/04 Dolomite Chapter 4
04/09 Evaporites Chapter 5
04/11 Sedimentary Iron Deposits Chapter 6
04/16 Sedimentary Phosphates Chapter 7
04/18 Coal, Oil Shale and Petroleum Chapter 8
04/23 Chert and Siliceous sediments Chapter 9
04/25 Volcaniclastic Sediments Chapter 10
04/30 Volcaniclastic Sediments Chapter 10
05/02 Review and Summary

**05/09 @ 8 AM Final Exam**

**Lab Calendar:**

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<td>01/24</td>
<td>Sediment analysis using the binocular microscope</td>
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01/31 Sieve Analysis

02/07 Grain description using the binocular microscope

02/14 Conglomerates

02/21 Sandstone Classification

02/28 Sandstone Petrography using the petrographic scope

03/06 Mudrocks

03/13 Spring Break

03/20 Midterm Lab Exam – Clastic Rocks

03/27 Introduction to carbonate rocks

04/03 Carbonate petrography

04/10 Dolomites

04/17 Evaporites, and Cherts

04/24 Iron Rocks, Phosphates and Coals

05/01 Lab Final Exam - Carbonate Rock and other rocks

Program Learning Outcomes:

1. Demonstrate a knowledge of the fundamental core geologic concepts of Mineralogy, and Petrology as used to identify and describe sedimentary rocks.

2. Execute geologic procedures and methods to accurately, and appropriately name and describe sedimentary rocks. (Skills)

3. Apply principles of logic and reasoning to develop and analyze the depositional history and diagenetic history of sedimentary rocks. (Logical - Reasoning)

4. Demonstrate the use of various geologic tools, such as hand lenses and binocular and petrographic microscopes to analyze sedimentary rocks (Critical thinking - Problem Solving)

5. Demonstrate proficiency in communicating geologic information obtained from the study of sedimentary rocks to others on a professional level. (Communication)

Student Learning Outcomes:
1. Demonstrate a knowledge of basic concepts of sedimentology  
2. Recognize the minerals and allochems found in sedimentary rocks  
3. Recognize the different types of sedimentary rocks in the field and laboratory  
4. Have a basic understanding of sedimentary processes.  
5. Demonstrate a knowledge of the relation between sedimentation and plate tectonic theory

**Grading:**

**Lecture:**
- Quizzes ______ 100 points (about 10)  
- Clastic Rock Exam ______ 100 points  
- Final Exam ______ 200 points  
- Total (possible) ______ 400 points  
  (Points earned divided by points possible)

**Lab:**
- Lab assignments ______ 110 points (about 11)  
- Lab Quizzes ______ 90 points (about 9)  
- Clastic Rock Exam ______ 100 points  
- Final Lab Exam ______ 100 points  
- Total (Points) ______ 400 points  
  (Points earned divided by points possible)

The course letter grade is based on adding the average from lecture and lab grades together and dividing by 2:  
100-90% = A, 89-80% = B, 79-70% = C, 69-60% = D, 59-00% = F

**Make-Up Exams:**

Do not miss a scheduled exam date unless you have a doctor’s excuse or Dean of Students Excuse. Unexcused absence = 0.

**Class Final Exam:** 05/09/2024 at 8 AM  
**Lab Final Exam:** 05/01/2024 at 2 PM

**Attendance Policy:**

Students are required to attend every lecture. Attendance will be monitored by unannounced quizzes, up to two per class period, that will affect the course grade. If you are ill or have a university excuse, contact me immediately after the class that you missed. It is best to see me before you miss class.
Academic Integrity (4.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf.

Withheld Grades Semester Grades Policy 5.5)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. For additional information, go to http://www.sfasu.edu/policies/course-grades-5.5.pdf.

Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.
Mental Health and Wellness

SFASU values students' mental health and the role it plays in academic and overall student success. SF A provides a variety of resources to support student's mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
SF ASU Counseling Services
www.sfasu.edu/counselingservices
3rd Floor Rusk Building
936-468-2401

SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
936-468-1041

Crisis Resources:
Burke 24-hour crisis line 1(800) 392-8343
Suicide Prevention Lifeline 1(800) 273-TALK (8255)
Crisis Text Line: Text HELLO to 741-741