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Fall 2015

# **EES 4096**

Michael Fitzgerald University of New Orleans

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# SYLLABUS FOR EES 4096 – Special Topics: Petroleum Exploration Concepts FALL SEMESTER 2015

**Instructor**: Dr. Michael Fitzgerald

GP 1068

280-6326 **Lecture**: Tu-Th 2:00 – 3:15

mfitzge3@uno.edu Room: GP 1056

**Required Text**: No textbook but reading material will be handed out during the semester.

Prerequisite: Consent of department.

### **COURSE GUIDELINES**

This course will introduce students to the concepts of petroleum geology, especially exploration. The course is based entirely on public domain literature that will expose the students to exploration concepts and thought processes through a series of exploration examples. Introductory lectures will focus on the geologic, economic, political, and social ingredients of an exploration opportunity. Particular attention will be given to the controls on source rock deposition, preservation, maturation, and distribution through time. The concept of critical timing for the geologic components is paramount to the exploration examples to follow. Early lectures will also address rift and foreland basin models as well as salt tectonics and their impact on play element distribution.

The bulk of the lectures to follow will focus on exploration examples from a variety of regions around the globe, including the East African lakes, Gulf of Suez, Central African rift, the South Atlantic margins, U.S. East Coast, Western Canada Basin, East Africa margin, transform margin of Africa and Brazil, eastern Mediterranean, West Siberia Basin, circum-Indian margins, and eastern Saudi Arabia.

Students will be required to read assigned papers before class, and grading will be based on their participation and contributions in class.

## Week # and Lecture Topics

- 1. Introduction and class overview
- 2. Geology of exploration
- 3. Economics of exploration
- 4. Political and social aspects of exploration
- 5. Controls on source rock deposition
- 6. Maturation and distribution through time of source rock
- 7. Rift models
- 8. Foreland basin models
- 9. Salt tectonics and their impact on play element distribution
- 10. Exploration examples: East African Lakes and Gulf of Suez

- 11. Exploration examples: Central African Rift and South Atlantic margins
- 12. Exploration examples: U.S. East Coast and Western Canada Basin
- 13. Exploration examples: East African Margi and the Transform Margin of Africa and Brazil
- 14. Exploration examples: Eastern Mediterranean and West Siberia Basin
- 15. Exploration examples: Circum-Indian margins and Eastern Saudi Arabia.

Prerequisites: Department consent.

## Student Learning Outcomes:

After completing this course, students will be able to: 1. understand and describe the concepts of petroleum geology, especially exploration; 2. understand exploration concepts and thought processes; and 3. understand and use the exploration examples described in the course.

Statement on Student Conduct: All students are expected to conduct themselves in a mature and disciplined manner that does not disrupt nor distract from the educational pursuits of others. Should the professor determine that a student's conduct is being distracting or disruptive, the professor may impose the student's immediate removal from the classroom until the student can conduct himself or herself in an appropriate manner. If the professor is unable to obtain the cooperation of the student, the student may be referred for disciplinary action.

Academic Integrity: Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at http://www.studentaffairs.uno.edu.

Accommodations for Students with Disabilities: It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to http://www.ods.uno.edu.



# **Syllabus Attachment**

Fall 2015

#### **Important Dates\***

Last day to adjust schedule w/out fee	08/18/2015
Semester Classes Begin	08/19/2015
Last day to adjust schedule w/fee,	
or withdraw with 100% refund	08/25/2015
Last day to apply for December commencement	09/25/2015
Final day to drop a course or resign	10/14/2015
Mid-semester examinations 10/0	5-10/09/2015
Final examinations12/0	7-12/11/2015
Commencement	12/18/2015
*Note: check Registrar's website for Saturday and	A/B sessions,

#### **Fall Semester Holidays**

Labor Day	09/07/2015
Mid-semester break	. 10/15-10/16/2015
Thanksgiving	. 11/26-11/27/2015

and for items not listed here: http://www.registrar.uno.edu

#### Withdrawal Policy - Undergraduate only

Students are responsible for initiating action to resign from the University (withdraw from all courses) or from a course on or before dates indicated in the current Important dates calendar. Students who fail to resign by the published final date for such action will be retained on the class rolls even though they may be absent for the remainder of the semester and be graded as if they were in attendance. Failure to attend classes does not constitute a resignation. Check the dates on the Registrar's website, http://www.registrar.uno.edu. Please consult The Bulletin for charges associated with dropping and adding courses.

## Incomplete Policy - Undergraduate only

The grade of I means *incomplete* and is given for work of passing quality but which, because of circumstances beyond the student's control, is not complete. The issuance of the grade of I is at the discretion of the faculty member teaching the course. For all graduate and undergraduate students, a grade of I becomes a grade of F if it is not converted before the deadline for adding courses for credit (as printed in the Important Dates Calendar) of the next regular semester including summer semester.

#### **Repeat Policy**

When a student is permitted to repeat a course for credit, the last grade earned shall be the one which determines course acceptability for degree credit. A student who has earned a C or better in a course may not repeat that course unless, (1) the catalog description indicates that the course may be repeated for credit, or (2) the student's Dean gives prior approval for documented extenuating circumstances.

#### **Graduate Policies**

Graduate policies often vary from undergraduate policies. To view the applicable policies for graduate students, see the Graduate Student Handbook:

http://www.uno.edu/grad/documents/GraduateStudentHandbook2014.pdf

#### **Academic Dishonesty Policy**

http://www.uno.edu/student-affairs-enrollment-management/documents/academic-dishonesty-policy-rev2014.pdf

#### **Safety Awareness Facts and Education**

Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:

http://www.uno.edu/student-affairs-enrollment-management/

**UNO Counseling Services and UNO Cares** 

UNO offers care and support for students in any type of distress. Counseling Services assist students in addressing mental health concerns through assessment, short-term counseling, and career testing and counseling. Find out more at <a href="http://www.uno.edu/counseling-services/">http://www.uno.edu/counseling-services/</a>. First-year students often have unique concerns, and UNO Cares is designed to address those students succeed. Contact UNO Cares through <a href="http://www.uno.edu/fye/uno-cares.aspx">http://www.uno.edu/fye/uno-cares.aspx</a>.

#### **Emergency Procedures**

Sign up for emergency notifications via text and/or email at E2Campus Notification: <a href="http://www.uno.edu/ehso/emergency-communications/index.aspx">http://www.uno.edu/ehso/emergency-communications/index.aspx</a>. All emergency and safety procedures are explained at the Emergency Health and Safety Office: <a href="http://www.uno.edu/ehso/">http://www.uno.edu/ehso/</a>.

#### **Diversity at UNO**

As the most diverse public university in the state, UNO maintains a Diversity Affairs division to support the university's efforts towards creating an environment of healthy respect, tolerance, and appreciation for the people from all walks of life, and the expression of intellectual point of view and personal lifestyle. The Office of Diversity Affairs promotes these values through a wide range of programming and activities. <a href="http://diversity.uno.edu/index.cfm">http://diversity.uno.edu/index.cfm</a>

#### **Learning and Support Services**

Help is within reach in the form of learning support services, including tutoring in writing and math and other supplemental instruction. Visit the Learning Resource Center in LA 334, or learn more at <a href="http://www.uno.edu/lrc/">http://www.uno.edu/lrc/</a>.

# **Affirmative Action and Equal Opportunity**

UNO is an equal opportunity employer. The Human Resource Management department has more information on UNO's compliance with federal and state regulations regarding EEOC in its Policies and Resources website: http://www.uno.edu/human-resource-management/policies.aspx