

**ES486 Petroleum Geology**  
**Peer-to-Peer Learning Model**  
**Journal Article Summaries/Case Study Presentations** *(Updated Winter 2019)*

**Instructions:**

Each student will be assigned a recent case-study journal article on a petroleum geology topic. The objective is to read the case study, digest the information, and create a 12-15-minute powerpoint oral presentation of the topic. The general organization of the presentation will be as follows:

- I. Introduction to the topic, with outline of the main presentation headings (introduction should include figures with maps on location of the case study)
- II. State of the problem or technique(s) addressed in the article.
- III. Methodology
- IV. Results
- V. Conclusion and Summary

Project Deliverables will include:

- A 12-15-minute powerpoint slide show with images and text on topic, summary of take-home messages
- 1-page handout / outline with key summary bullet points on topic
- Optional creative video-clip (youtube, etc.) illustrating the techniques or methods

*Note: A general rule of thumb is to allow approximately 1 minute per slide of content in a scientific presentation. Your presentation should be no more than 10-15 slides for a 12-15-minute presentation, depending on the complexity of the information you are trying to summarize. The presentations will be worth 20 points.*

**Presentation Schedule TENTATIVE**

**Download papers at following link:**

[http://www.wou.edu/las/physci/taylor/es486\\_petro/ES486\\_Case\\_Studies.htm](http://www.wou.edu/las/physci/taylor/es486_petro/ES486_Case_Studies.htm)

**Week 10 / Tuesday March 12 [HAT PARTY – Wear a Festive Hat, prizes to be awarded for creativity]**

- |           |  |
|-----------|--|
| 2:00-2:10 | Taylor Introduction  |
| 2:15-2:25 | Okre et al., 2013, Hydrocarbon Potential in Kazakstan [WALTER]                         |
| 2:30-2:40 | Delpomdor et al., 2018, Precambrian Petroleum System in Congo, Africa [NICOLE]         |
| 2:45-2:55 | Macgregor et al., 2012, Nile Basin System [BRIANNA]                                    |
| 3:00-3:10 | Rateau et al., 2013, Igneous Intrusion and Hydrocarbon Accumulation, Shetland [NICK]   |
| 3:15-3:25 | Holgate et al., 2013, Sedimentology and Stratigraphy of Troll Field, North Sea [MANDY] |
| 3:30-3:40 | TBD – Petroleum Geology in Brazil / Oman / Lebanon / Somalia – TBD [LANCE]             |
| 3:40-3:50 | Taylor Conclusion  |

**Week 10 / Thursday March 14 [TACO THURSDAY / POTLUCK]**

- |           |   |
|-----------|---|
| 2:00-2:10 | Taylor Introduction   |
| 2:15-2:25 | Gaswirth and Higley, 2013, Petroleum Analysis, West Edmond Field, OK [AUSTIN] |
| 2:30-2:40 | Baytok and Panter, 2013, Fracture Reservoirs Piceance Basin, CO [T-HO]        |
| 2:45-2:55 | Hudec et al., 2013, Jurassic Salt Domes, Gulf of Mexico [SALVADOR]            |
| 3:00-3:10 | Tozer et al., 2014, Athabasca Oil Sands [ANDY]                                |
| 3:15-3:25 | Shimer et al., 2014, Basin Analysis of Nanushuk Formation, Alaska [TIM]       |
| 3:30-3:50 | Taylor Conclusion   |

## Topics of Choice: Rank top 3 interest items / case-study journal article per student

[Ali et al., 2019, Petroleum Geology Northern Somalia](#)  
[Al Saad, 2016, Paleozoic Petroleum Systems, Qatar](#)  
[Al Ramadan et al., 2017, Reservoir Characterization, Nuayyim Field, Saudi Arabia](#)  
[Amour et al, 2013, Carbonate Ramp Reservoirs](#)  
[Baytok and Panter, 2013, Fault and Fracture Reservoirs Piceance Basin, Colorado](#)  
[Beglinger et al., 2013, Subsidence History and Thermal Maturation, Campos Basin, Brazil](#)  
[Boro et al., 2014, Fracture Analysis of Reservoirs, Northern Italy](#)  
[Burgess et al., 2013, Identification of Carbonate Build-ups with Seismic Reflection](#)  
[Bust et al., 2013, Petrophysical Analysis of Shale Gas Reservoirs](#)  
[Delpomdor et al., 2018, Precambrian Petroleum Systems of Congo](#)  
[Fan et al, 2012, Reservoir Fracture Propagation During Oil to Gas Transformation](#)  
[Gaswirth and Higley, 2013, Petroleum Analysis of West Edmond Field, Oklahoma](#)  
[Ghalayani et al., 2018, Petroleum Systems of Lebanon](#)  
[Grant et al., 2014, Porosity trends in the Skagerrak Formation, Central Graben, United Kingdom](#)  
[Gross et al., 2018, Petroleum Systems North Alpine Foreland Basin, Austria](#)  
[Grotzinger and Alrawai, 2014, Carbonate Reservoirs, Sultan of Oman](#)  
[Haddad and Mancini, 2013, Reservoir characterization of Jurassic Smackover Formation, Southwest Alabama](#)  
[Harouna et al., 2017, Subsidence History Termit Basin, Niger](#)  
[Holgate et al., 2013, Sedimentology and stratigraphy of the Troll Field, North Sea](#)  
[Hudec et al., 2013, Jurassic Salt Dome Systems, Gulf of Mexico](#)  
[Hudec et al., 2013, Louann Salt Gulf of Mexico](#)  
[Johansen, 2013, Seismic Facies Analysis Svalbard](#)  
[Johnson, 1998, Petroleum Geology of Washington State](#)  
[Karakitsios, 2013, Ionian Sea Petroleum Systems](#)  
[Kohl et al., 2014, Gas Reservoirs in the Marcellus Shale, Appalachian Basin](#)  
[Li et al., 2014, Resistivity as a Tool for Permeability Analysis](#)  
[Li et al., 2017, Reservoir Potential in Deltaic Sandstones, Ordos Basin, China](#)  
[Liu et al., 2017, Origin of Oils in Termit Basin, Niger](#)  
[Macgregor et al., 2012, Nile Basin System](#)  
[Max and Johnson, 2014, Gas Hydrates](#)  
[Meng et al., 2019, Hydrocarbon Potential of Lacustrine Sediments, NW China](#)  
[Milliken et al., 2013, Gas Reservoirs in the Marcellus Shale, Pennsylvania](#)  
[Moscardelli et al., 2013, Seismic Analysis of the Heidrun Field Norway](#)  
[Neumaier et al., 2014, Seal Assessment of Venezuela](#)  
[Nguyen et al., 2013, Diagenetic Effects on Reservoir Porosity in the North Sea](#)  
[Okere et al., 2013, Hydrocarbon Potential in Kazakhstan](#)  
[Petersen et al., 2018, Source Rocks and Petroleum in Danish North Sea](#)  
[Pimentel et al., 2016, Deep Offshore Petroleum Systems West Iberia](#)  
[Rateau et al., 2013, Igneous Intrusion and Hydrocarbon Accumulation in Shetland](#)  
[Roberts et al., 2013, Basin Modeling](#)  
[Sen, 2013, Petroleum occurrence in the Black Sea, Turkey](#)  
[Shimer et al., 2014, Basin Analysis of the Nanushuk Formation, Alaska](#)  
[Tozer et al., 2014, Athabasca Oil Sands](#)  
[Yang et al., 2017, Hydrocarbon Potential Cretaceous Shales, Ecuador](#)  
[Zeeb et al., 2013, Outcrop Fracture Analysis and Reservoir Permeability](#)  
[Zhang et al., 2019, Calcite Content and Carbonate Reservoirs, E. Saudi Arabia](#)