

Two Free Online Geomechanics Courses from Stanford University – Starting April 1, 2019

Unconventional Reservoir Geomechanics – Stanford Professor Mark Zoback and Research Scientist Arjun Kohli have developed a new online course on unconventional reservoir geomechanics. In this course a range of topics are addressed that affect the recovery of hydrocarbons from extremely low-permeability unconventional oil and gas reservoirs. The first part of the course starts with laboratory-scale studies that investigate the composition, microstructure and pore systems as well as fluid flow, physical and deformational properties of unconventional formations. The first part of the course concludes with discussions of basin-scale stress fields, fracture and fault systems as well as pore pressure. In the second part of the course horizontal drilling and multistage hydraulic fracturing are discussed. This part of the course also includes a review of reservoir seismology with an emphasis on microseismic monitoring and interactions among the state of stress, pre-existing fractures and faults and hydraulic fracturing operations to optimize the production process. In the final part of the course the environmental impacts of unconventional oil and gas development are discussed, especially the topic of induced seismicity.

Two lectures are released each week. Participants are free to watch the lectures at any convenient time as long as the homework assignments are completed on time. Those who correctly complete 70% of the 6 homework assignments will receive a certificate of accomplishment.

To learn more about the course and enroll, visit: <https://lagunita.stanford.edu/courses/course-v1:EarthSciences+UnconvResGeo208+Spring2019/about>

This course follows a new textbook *Unconventional Reservoir Geomechanics: Shale Gas, Tight Oil and Induced Seismicity* by Professor Mark Zoback and Arjun Kohli, published by Cambridge University Press. It will be available in April 2019 from Cambridge University Press:

www.cambridge.org/9781107087071

Cambridge University Press is offering a 20% discount on this book to participants in this course with free shipping. The discount code is ZOBACKMOOC

It is also available from Amazon (Print or Kindle):

https://www.amazon.com/Unconventional-Reservoir-Geomechanics-Induced-Seismicity/dp/1107087074/ref=sr_1_1?ie=UTF8&qid=1550444180&sr=8-1&keywords=Zoback+and+Kohli

Reservoir Geomechanics – Professor Zoback has taught Reservoir Geomechanics to Stanford students for a number of years and was filmed in 2014. It was first available as a free Massive Open Online Course (MOOC) in the spring of 2014. To date, over 10,000 people have completed the course.

Two lectures are released each week. Participants are free to watch the lectures at any convenient time as long as the homework assignments are completed on time. Those who

correctly complete 70% of the 8 homework assignments will receive a certificate of accomplishment.

The course follows the text Reservoir Geomechanics, by Professor Mark Zoback, published by Cambridge University Press. It is available from:

<https://www.cambridge.org/us/academic/subjects/earth-and-environmental-science/applied-geoscience-petroleum-and-mining-geoscience/reservoir-geomechanics?format=PB>

Amazon (Print or Kindle edition):

https://www.amazon.com/Reservoir-Geomechanics-Mark-DZoback/dp/0521146194/ref=sr_1_1?ie=UTF8&qid=1550273117&sr=8-1&keywords=