Revised 4/27/2012 per Curriculum Review Committee

See <u>http://ww</u>	vw.uaf.edu/uafgov/fac	<u>sulty-senate/curriculu</u> rules governing cur		-proced	dures-/ for a	F complete	(B	MA 7500 ion of	0).
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and the basic tools used exploration and exploitation, including subsurface mapping, well logging and exploration geophysics. *Prerequisites: Graduate standing or permission of the instructor.* Cross-listed with GEOS F646. Stacked with GEOS F446. (3 + 0)

3 Credits Offered Fall Even-numbered Years

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lassification appropriately;	Undergraduate courses only. (otherwise leave fields blank.	Consult with CLA Curric	culum (Council to	o apply S	or H
H = Humanities S = Social Sciences						
Will this course be used	- 6.16!U					

	to the Provost for fee approval?		
Has the course b	een offered as special topics or trial cours	e previously?	

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	APPROVALS: Add additional sign	nature lines as needed.		
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). Note: The guidelines are online:

The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items missing or unclear, the proposed course (or

GEOS 446 Petroleum Geology 3 credits

COURSE OUTLINE: (28 CLASS DAYS)

Week	Topic	Homeworks	Readings
1	Intro—Why petroleum?		
	What is Petroleum?		Selley Ch. 2
2	The subsurface environment	Hwk 1: Calculating geothermal gradients	Selley, Ch. 4
	Methods of Exploration	Hwk 2: Rock id	Selley, Ch. 3.1, 3.2, 3.5
3		Hwk 3: Examining well cuttings and well logs	
4		Hwk 4: Interpreting seismic	Selley, Ch. 3.3
5	The source: How oil forms		Selley, Ch. 5

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Midterm I		

The Reservoir:

What makes a good reservoir rock?

Petroleum systems & plate tectonic habitat	Hwk 9: Using seismic data for structural interpretation and timing	Selley, Ch. 8
	Hwk 10: Plate tectonic setting of modern day basins	
		Petroleum systems & plate tectonic nabitat seismic data for structural interpretation and timing Hwk 10: Plate

PETE/GEOS 646 Petroleum Geology 3 credits

Prerequisites:	
Instructor:	
Office Hours:	
Text:	
Class format:	

Grading Policy

9	0 0 0 0	Hwk 8: Constructing subsurface structure maps; Identifying play types from subsurface structure	
		maps	
10	M: House II		
10	Midterm II		
11	Petroleum systems & plate tectonic habitat	Hwk 9: Using seismic data for structural interpretation and timing	Selley, Ch. 8
12		Hwk 10: Plate tectonic setting of modern day basins	
	Reservoir engineering:	Hwk 11: Simple reserve calculation	Selley, Ch. 6.8-6.9
13	Well Drilling and Completion		
	Non conventional hydrocarbon resources		
14			
	Student presentations		

Disability Services: