

## DOCUMENTS OF THE GENERAL FACULTY

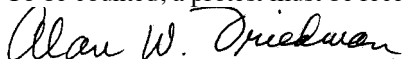
**PROPOSED CHANGES TO THE PETROLEUM ENGINEERING DEGREE PROGRAM IN THE COCKRELL SCHOOL OF ENGINEERING CHAPTER IN THE *UNDERGRADUATE CATALOG 2018-2020***

Dean Sharon L. Wood in the Cockrell School of Engineering has filed with the Secretary of the Faculty Council the following proposal to change the Petroleum Engineering degree program in the Cockrell School of Engineering chapter in the *Undergraduate Catalog, 2018-2020*. The Petroleum Engineering faculty approved the proposal on April 12, 2017; the Degrees and Courses Committee approved it on May 24, 2017; the Dean and the College faculty approved it on September 18, 2017. The Secretary has classified this proposal as legislation of exclusive interest to one college or school.

The Committee on Undergraduate Degree Program Review recommended approval of the proposal on December 5, 2017, and forwarded it to the Office of the General Faculty. The Faculty Council has the authority to approve this legislation on behalf of the General Faculty. The authority to grant final approval on this legislation resides with the Provost on behalf of the President.

If no objection is filed with the Office of the General Faculty by the date specified below, the legislation will be held to have been approved by the Faculty Council. If an objection is filed within the prescribed period, the legislation will be presented to the Faculty Council at its next meeting. The objection, with reasons, must be signed by a member of the Faculty Council.

To be counted, a protest must be received in the Office of the General Faculty by December 12, 2017.



Alan W. Friedman, Secretary of the General Faculty and Faculty Council  
The University of Texas at Austin

Arthur J. Thaman and Wilhelmina Doré Thaman Professor of English and Comparative Literature

**PROPOSED CHANGES TO THE PETROLEUM ENGINEERING DEGREE PROGRAM IN THE  
COCKRELL SCHOOL OF ENGINEERING CHAPTER IN THE *UNDERGRADUATE CATALOG 2018-2020***

**TYPE OF CHANGE:**     Academic Change  
                                Degree Program Change (THECB form required)

**PROPOSED CLASSIFICATION:**     Exclusive     General     Major

**1. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AND ASSESSMENT, TO DETERMINE IF SACSCOC APPROVAL IS REQUIRED.**

- |  |   |
|--|---|
| • Is this a new degree program?                                  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| • Is this program being deleted?                                 | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| • Does the program offer courses that will be taught off campus? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| • Will courses in this program be delivered electronically?      | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

**2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:**

PGE 368 replaced with PGE 358. Replacement course will cover a significant portion of material that goes beyond well-logging interpretation, including applications in reservoir engineering, drilling, production, geophysics. The change is mainly meant to more accurately reflect the course as it has evolved.

**3. THIS PROPOSAL INVOLVES: (Please check all that apply)**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Courses in other colleges                               | <input type="checkbox"/> Courses in proposer's college that are frequently taken by students in other colleges                                 | <input type="checkbox"/> Flags   |
| <input type="checkbox"/> Course in the core curriculum                           | <input type="checkbox"/> Change in course sequencing for an existing program   | <input checked="" type="checkbox"/> Courses that have to be added to the inventory |
| <input type="checkbox"/> Change in admission requirements (external or internal) | <input type="checkbox"/> Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office) |  |

**4. SCOPE OF PROPOSED CHANGE:**

- |   |   |
|---|---|
| a. Does this proposal impact other colleges/schools?<br>If yes, then how would you do so?   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| b. Do you anticipate a net change in the number of students in your college?<br>If yes, how many more (or fewer) students do you expect?                | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| c. Do you anticipate a net increase (or decrease) in the number of <u>students from outside</u> of your college taking <u>classes in your college</u> ? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| If yes, please indicate the number of students and/or class seats involved.   |   |
| d. Do you anticipate a net increase (or decrease) in the number of <u>students from your college</u> taking <u>courses in other colleges</u> ?          | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| If yes, please indicate the number of students and/or class seats involved.   |   |

**If 4 a, b, c, or d was answered with yes, please answer the following questions:**

**If the proposal has potential budgetary impacts for another college/school, such as requiring new sections or a non-negligible increase in the number of seats offered, at least one contact must be at the college-level.**

How many students do you expect to be impacted? n/a

Impacted schools must be contacted and their response(s) included:

Person communicated with:

Date of communication:

Response:

- e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No

**If yes, Undergraduate Studies must be informed of the proposed changes and their response included:**

Person communicated with:

Date of communication:

Response:

- f. Will this proposal change the number of hours required for degree completion? No  
 Note: THECB Semester Credit Hour Change Form required, download from URL:  
<http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc>  
 If yes, explain:

#### 5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date:	April 12, 2017	PGE Faculty and chair
College approval date:	May 24, 2017	CSE Degrees & Courses Committee
Dean approval date:	Sept. 18, 2017	CSE Faculty; Sharon L. Wood, Dean

#### PROPOSED NEW CATALOG TEXT:

#### BACHELOR OF SCIENCE IN PETROLEUM ENGINEERING

{No changes up to this point.}

#### Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum. In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements are identified in the *Course Schedule*.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering undergraduate adviser before the student enrolls in them.

Requirements		Hours
<b>Petroleum and Geosystems Engineering Courses</b>		
PGE 301	Engineering, Energy, and the Environment	3
PGE 310	Formulation and Solution of Geosystems Engineering Problems	3
PGE 427	Properties of Petroleum Fluids	4
PGE 322K	Transport Phenomena in Geosystems	3
PGE 326	Thermodynamics and Phase Behavior	3
PGE 333T	Engineering Communication (writing flag and ethics and leadership flag)	3
PGE 323K	Reservoir Engineering I: Primary Recovery	3

PGE 323L	Reservoir Engineering II: Secondary and Tertiary Recovery	3
PGE 334	Reservoir Geomechanics	3
PGE 337	Introduction to Geostatistics	3
PGE 362	Production Technology and Design	3
PGE 365	Resource Economics and Valuation	3
PGE [368] 358	<del>[Fundamentals of Well Logging]</del> Principles of Formation Evaluation	3
PGE 373L	Geosystems Engineering Design and Analysis	3
PGE 424	Petrophysics	4
PGE 430	Drilling and Well Completions	4
<b>Chemistry</b>		
CH 301	Principles of Chemistry I (part II science and technology)	3
CH 302	Principles of Chemistry II	3
<b>Engineering Mechanics</b>		
E M 306	Statics	3
E M 319	Mechanics of Solids	3
<b>Geological Sciences</b>		
GEO 303	Introduction to Geology	3
GEO 316P	Sedimentary Rocks	3
<b>Mathematics</b>		
M 408C	Differential and Integral Calculus (mathematics; quantitative reasoning flag)	4
M 408D	Sequences, Series, and Multivariable Calculus	4
M 427J	Differential Equations with Linear Algebra (quantitative reasoning flag)	4
or M 427K	Advanced Calculus for Applications I	
<b>Physics</b>		
PHY 303K	Engineering Physics I (part I science and technology; quantitative reasoning flag)	3
PHY 303L	Engineering Physics II (part I science and technology; quantitative reasoning flag)	3
PHY 103M	Laboratory for Physics 303K	1
PHY 103N	Laboratory for Physics 303L	1
<b>Rhetoric and Writing</b>		
RHE 306	Rhetoric and Writing (English composition)	3
<b>Other Required Courses</b>		
Approved technical area electives		12
<b>Remaining Core Curriculum Courses</b>		
E 316L	British Literature (humanities; <del>in E 316L, 316M, 316N, and 316P</del> some sections carry a global cultures or cultural diversity flag)	3

or E 316M	American Literature ( <u>humanities; some sections carry a global cultures or cultural diversity flag</u> )	
or E 316N	World Literature ( <u>humanities; some sections carry a global cultures or cultural diversity flag</u> )	
or E 316P	Masterworks of Literature ( <u>humanities; some sections carry a global cultures or cultural diversity flag</u> )	
	American and Texas government (some sections carry a cultural diversity flag)	6
	American history (some sections carry a cultural diversity flag)	6
	Visual and performing arts (some sections carry a global cultures and/or cultural diversity flag)	3
	Social and behavioral sciences (some sections carry a global cultures and/or cultural diversity flag)	3
UGS 302	First-Year Signature Course (in UGS 302 all sections carry writing flag[; <del>in UGS 303 some sections carry a writing flag</del> ])	3
or UGS 303	First-Year Signature Course ( <u>in UGS 303 some sections carry a writing flag</u> )	
Total Hours		128

### SUGGESTED ARRANGEMENT OF COURSES

#### First Year

First Term	Hours	Second Term	Hours
GEO 303	3	PHY 303K	3
CH 301	3	PHY 103M	1
M 408C	4	M 408D	4
RHE 306	3	PGE 301	3
UGS 302 or 303	3	CH 302	3
		Social and behavioral sciences or visual and performing arts	3
	16		17

#### Second Year

First Term	Hours	Second Term	Hours
PHY 303L	3	GEO 316P	3
PHY 103N	1	E M 319	3
E M 306	3	PGE 333T	3
M 427J or 427K	4	Social and behavioral sciences or visual or performing arts	3
PGE 310	3	PGE 427	4
PGE 326	3		
	17		16

#### Third Year

<b>First Term</b>	<b>Hours</b>	<b>Second Term</b>	<b>Hours</b>
PGE 323K	3	PGE 323L	3
PGE 424	4	PGE 362	3
PGE 430	4	PGE [ <del>368</del> 358]	3
PGE 322K	3	American history	3
American government	3	Approved technical area elective	3
	17		15

**Fourth Year**

<b>First Term</b>	<b>Hours</b>	<b>Second Term</b>	<b>Hours</b>
PGE 334	3	PGE 373L	3
PGE 337	3	E 316L, 316M, 316N, or 316P	3
PGE 365	3	American history	3
Approved technical area elective	3	Approved technical area electives	6
American government	3		
	15		15

Total credit hours: 128