

# Craft & Hawkins Department of Petroleum Engineering - Graduate Program Core Course Requirements

Beginning with the fall semester 2021, the department has shifted into a new Core-Course Model. As a result, all new students seeking a Ph.D. or MS Degree in petroleum engineering must fulfill the following core-course requirements (4 core courses) offered in the department as a part of the course work – PETE graduate math, PETE graduate reservoir (formation evaluation) engineering, PETE graduate production engineering, and PETE graduate drilling engineering.

Descriptions on the previous model (Core-Curriculum Model) are shown below only for information purpose.

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All students seeking a Ph.D. or MS Degree in petroleum engineering must fulfill the following **minimum** requirements\*. This list is a supplement and not a substitute for the LSU catalog requirement and may be updated by semesters\*\*.

AREA/Courses	Graduate credit hours
I. <u>Engineering Math</u>	
MS: One of the following courses	3
PhD: Two of the following courses	6
Math 4038****, ME 4563, PETE 7201, EXST 7004, or other advanced mathematics course	
II. <u>Drilling</u>	
One of the following courses	3
PETE 4045, PETE 4086, PETE 4087, PETE 4241 Dir.Drlg. [Almeida, Spring 18-Sec.1]	
III. <u>Formation Evaluation</u>	3 (0)
One of the following courses	
PETE 3036***, PETE 4088, PETE 7214, PETE 7285	
IV. <u>Production</u>	3
One of the following courses	
PETE 4046, PETE 4085, PETE 7211, PETE 7212,	

PETE 4090, PETE 4084  
PETE 7242 Mphase Flow in Pipes [Waltrich, Spring'18-Sec 3]

V. Reservoir 6

PETE 4051, PETE 4050, PETE 4056, PETE 4083,  
PETE 4089, PETE 7202, PETE 7231, PETE 7280,  
PETE 7232

Total credit hours: 18 – MS or 21 – PHD

- \* Prior equivalent courses may be substituted for coverage but not for credit unless officially transferred.
- \*\* Some Special Topic courses PETE 4241, 4242, 7241, and 7242 may be added to core curriculum upon approval of the faculty.
- \*\*\* Only students with BS in other engineering areas or science. The course does not contribute graduate credit hours.
- \*\*\*\* Need to consult with the course instructor about waiving MATH 2057 prerequisite if a similar course has been already taken for undergraduate degree.

Updated: 4/4/19

## **Procedure for PETE course inclusion in Core Curriculum (Faculty Meeting September 12, 2012)**

### **1. Permanent inclusion of Special Topic courses in Core Curriculum**

**Procedure:**

- The course should be offered at least two times
- Faculty approval (vote) based after evaluation of the instructor's proposal and course syllabus
- Course added to CC: number + title + instructor name

### **2. Temporary (one time) inclusion of Special Topic courses in Core Curriculum**

**Procedure:**

- Instructor's proposal on the 2<sup>nd</sup> offering of the course
- Faculty approval (vote) based upon evaluation of the instructor's proposal and course syllabus
- Course added to CC: number + title + instructor name + semester-year