

LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

Changing Lives,
Creating Futures

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Louisiana
Community
& Technical
College System

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TO: Dr. Monty Sullivan
LCTCS President
FROM: Dr. René Cintrón
Interim Chief Academic Officer

SUBJECT: Program Revision at Bossier Parish Community College

DATE: August 24, 2017

FOR BOARD ACTION:

Recommendation: Staff recommends that the Board approve the program modification listed below.

Program Modification

- 1. Associate of Applied Science (AAS) in Oil and Gas Technology (CIP 15.0699) - 5 STARS

Background: With the recommendation of the program advisory council and industry partners, BPCC is proposing a new concentration within the Oil and Gas Technology AAS to prepare students for work in process technology industries. The proposed Process Technology concentration places emphasis on processing of the hydrocarbons extracted during the upstream stage, including processing equipment, power plant systems, safety operations and other technical skills needed to succeed in the process technology industry. The revision aligns with NAPTA accrediting organization standards and is supported by Louisiana's Chemical Association.

Fiscal Impact: There are no anticipated expenditures associated with this revision. Faculty and resources under the existing curriculum will be allocated to the new concentration.

History of Prior Actions: There is a history of creating programs to meet student and workforce needs.

Benefits to the System: These additions will allow BPCC to better meet student and workforce needs.

APPROVED

Signature and date: 9-20-17
LCTCS BOARD OF SUPERVISORS

Signature of Monty Sullivan
Approved for Recommendation to the Board
Dr. Monty Sullivan

Date: 9/20/17



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

TYPE OF PROPOSED CHANGE	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

AWARD LEVEL(S)	
Award Level(s): <input checked="" type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree <u>Name:</u> _____	<input type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

NAME OF PROGRAM(S) and AWARD LEVEL(S)			
Name: Associate of Applied Science in Oil and Gas Technology			
CIP: 15.0699	Credit Hours: 63	Contact Hours: 1056	Award Level: AAS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
<ol style="list-style-type: none"> <li>1. Change the program name to Oil and Gas Technology.</li> <li>2. Create two concentrations. One in Production Technology, which is the existing curriculum and develop a new concentration, Process Technology. The proposed Process Technology curriculum will prepare students for work in process technology industries, which includes oil and gas extraction, chemical, refining, and other industries.</li> </ol>

**REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)**

The energy industry is a very important part of the economy and culture in Northwest Louisiana. From upstream to downstream operations, the industry has been an important part of life in this region for over 100 years. As employment needs and technology have evolved, so have educational requirements.

Due to industry demand and the ever growing need for qualified technicians, BPCC has offered an Oil and Gas Technology program that concentrates solely on oil and gas production. Commencing in 2009, the current Oil and Gas Production Technology curriculum places emphasis primarily on the upstream stage of the production process, which involves exploration, extraction, and production of hydrocarbons. The existing program is a 63 credit hour, four semester curriculum.

With the success of the current Oil and Gas Technology program and increased demand within the downstream energy sector, industry partners have requested that the current Associate of Applied Science in Oil and Gas Technology include a concentration in Process Technology. Currently in industry, there is a severe shortage of qualified workers needed to fill positions within the production, process, oil and gas exploration, and chemical industries. In addition to the shortage, a very high number of retirements are projected in the industry over the next decade. The proposed Process Technology concentration places emphasis on processing of the hydrocarbons extracted during the upstream stage, including processing equipment, power plant systems, safety operations, computing, trouble-shooting, regulatory compliance and more. The proposed curriculum is a 63 credit hour, four semester curriculum based on the North American Process Technology Alliance (NAPTA) recommended learning outcomes. Upon completion of the Process Technology concentration, students will be qualified to take the PTEC exam, which is widely industry recognized exam indicating applied process technology knowledge.

**IMPLEMENTATION DATE (Semester and Year)**

Spring 2018

**SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION**

<input checked="" type="checkbox"/> Main Campus	<input type="checkbox"/> All Campuses	<input type="checkbox"/> Sites (list below)
Site 1:		
Site 2:		
Site 3:		
Site 4:		

LOUISIANA WORKFORCE COMMISSION STAR LEVEL ( <a href="http://www.laworks.net/Stars/">http://www.laworks.net/Stars/</a> )				
<input checked="" type="checkbox"/> 5 Stars	<input checked="" type="checkbox"/> 4 Stars	<input type="checkbox"/> 3 Stars	<input type="checkbox"/> 2 Stars	<input type="checkbox"/> 1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)		
<input checked="" type="checkbox"/> Use Existing Faculty #: <u>2</u>	<input checked="" type="checkbox"/> Hire Adjunct Faculty #: <u>1</u>	<input type="checkbox"/> Hire Full-Time Faculty #: _____
MINIMUM CREDENTIALS REQUIRED FOR FACULTY		
Education: Masters	Experience: 10 years	Certification:

ANTICIPATED ENROLLMENT:					
Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>					
<u>EVENING</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Describe Process for Attaining & Estimating Enrollment:	Current Oil and Gas Production Technology student interest, advisory board discussions, inquiries from local process industries regarding technician employment				

PROGRAM ACCREDITATION:		
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:	The AAS in Oil and Gas Production Technology (current program name) is accredited by the Association of Technology, Management, and Applied Engineering	

(ATMAE), and the program modifications will be submitted to ATMAE as part of the next ATMAE accreditation review.

**DESCRIBE IMPLEMENTATION COSTS** (Include Faculty, Facilities, Library Resources, etc.)

All resources including faculty, facilities, lab equipment, and library resources are already available.

**PROGRAM CURRICULUM**

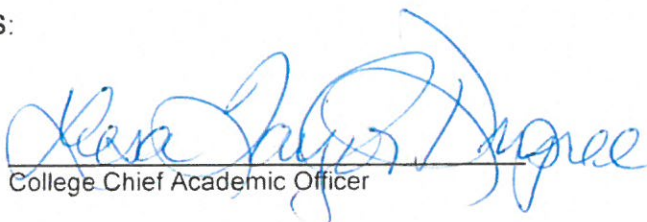
(Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours
<b>First Semester</b>						
MATH	102	College Algebra	3	0	48	3
ISAF	111	Safety, Health, Environment for Process Technology	2	0	32	2
OGPT	102	Introduction to Process Technology	3	0	48	3
CHEM	107	Introductory Chemistry I	3	0	48	3
SPCH	110	Public Speaking	3	0	48	3
OGPT	260	Computer Applications for the Oil and Gas Industry				
Or						
CIS	105	Computer Concepts	3	0	48	3
<b>Second Semester</b>						



PHSC	105	Elemental Physics	3	0	48	3
OGPT	203	Oil and Gas Instrumentation and Lab	3	3	96	4
TEED	101	Basic Electricity and Lab	3	3	96	4
OGPT	150	Regulatory Issues for Industry	2	0	32	2
OGPT	225	Process Technology I: Equipment	3	0	48	3
<b>Third Semester</b>						
ENGL	101	Composition and Rhetoric I	3	0	48	3
OGPT	153	Hydraulic/Pneumatic Applications for the Oil & Gas Industry w/Lab	3	0	48	3
OGPT	210	Intro to Quality Management	3	0	48	3
PHSC	111	Physical Geology	3	0	48	3
Humanities	Elective		3	0	48	3
<b>Fourth Semester</b>						
ISAF	209	Safety Regulations/Hazwoper 40	3	0	48	3
OGPT	228	Troubleshooting for Process Technology	3	0	48	3
OGPT	226	Process Technology II: Systems	3	0	48	3
OGPT	227	Process Technology III: Operations	3	0	48	3
POSC	202	State & Local Government	3	0	48	3
<b>Fifth Semester</b>						


**SIGNATURES:**

  
College Chief Academic Officer

8/24/17  
Date

  
College Chief Executive Officer

\_\_\_\_\_  
Date

**Bossier Parish Community College  
Unofficial Curriculum Sheet**

<b>ACT Scores</b>	ENGL		MATH		READ	
<b>COMPASS</b>	ENGL		MATH		READ	

This unofficial curriculum sheet is established for guidance of students while pursuing an associate degree or certificate at BPCC. Courses marked below which are transferred from another institution are not applicable to degree requirements until approved by the Office of Academic Affairs. Students are encouraged to meet with an academic advisor concerning required courses and sequencing for this degree.

**2017-2018 Associate of Applied Science in Oil and Gas Technology (Process Technology)**

Last Name	First Name	MI	Student ID #	Date Initiated	Phone and/or Email

Dev Course	Grade	Semester	Advisor

Dev Course	Grade	Semester	Advisor

<b>Freshman Year</b>				
<i>First Semester</i>	<i>Grade</i>	<i>Semester Earned</i>	<i>Name of Institution/ Notes</i>	<i>Hours</i>
MATH 102: College Algebra				3
SPCH 110: Public Speaking				3
ISAF 111: Safety, Health & Environment for Process Technology				2
OGPT 102: Introduction to Process Technology				3
CHEM 107: Introductory Chemistry I				3
OGPT 260: Computer Applications for the Oil and Gas Industry or CIS 105: Computer Concepts				3
				<b>17</b>

<i>Second Semester</i>	<i>Grade</i>	<i>Semester Earned</i>	<i>Name of Institution/ Notes</i>	<i>Hours</i>
PHSC 105: Elemental Physics				3
OGPT 203: Oil & Gas Inst. and Lab				4
TEED 101: Basic Electricity and Lab				4
OGPT 150: Regulatory Issues for O&G Industry				2
OGPT 225: Process Technology I: Equipment				3
				<b>16</b>

<b>Sophomore Year</b>				
<i>First Semester</i>	<i>Grade</i>	<i>Semester Earned</i>	<i>Name of Institution/ Notes</i>	<i>Hours</i>
PHSC 111: Physical Geology				3
ENGL 101: Composition and Rhetoric I				3
OGPT 153: Hydraulic/Pneumatic Applications for the Oil & Gas Industry w/Lab				3
OGPT 210: Intro to Quality Management				3
Humanities elective				3
				<b>15</b>

<i>Second Semester</i>	<i>Grade</i>	<i>Semester Earned</i>	<i>Name of Institution/ Notes</i>	<i>Hours</i>
ISAF 209: Safety Regulations/Hazwoper 40				3
OGPT 228: Troubleshooting for Process Technology				3
OGPT 226: Process Technology II: Systems				3
OGPT 227: Process Technology III: Operations				3
POSC 202: State & Local Government				3
				<b>15</b>

**Total Hours: 63**

\_\_\_\_\_  
Advisor

\_\_\_\_\_  
Dean or Designee

<http://www.bpcc.edu/catalog/student/generaldegreeesq.html>. <sup>a</sup> For transfer to a four-year institution, students are strongly advised to take MATH 102 instead of MATH 101. Students must seek the assistance of their advisor to determine the appropriate mathematics course. <sup>b</sup> May not be sole humanities course. <sup>c</sup> May only be used for AAS degrees.



# BPCC & SLCC curriculum review recommendations

David LaFargue <david.lafargue@sowela.edu>

Thu 8/24/2017 12:18 PM

To: Rene Cintron <rebecintron@lctcs.edu>;

Cc: Melissa U Lacour <melissalacour@lctcs.edu>; Lisa Pulizzano <Lisa@lca.org>;

Dr. Cintron,

The Process Technology Education Review Committee was tasked with reviewing proposed curriculum for Bossier Parish Community College (BPCC) and South Louisiana Community College (SLCC).

## SLCC Proposal - Oil and Gas

SLCC is proposing an industrial Oil and Gas pathway for their institution. The curriculum SLCC presented is quite similar to BPCC's existing Oil and Gas program offered at the BPCC campus. Although the Oil and Gas field of study has considerable overlap with the Process Technology 8 core courses as identified through the North American Process Technology Alliance (NAPTA), NAPTA does not have identified coursework components (learning outcomes, objectives, etc.) for the Oil and Gas concentration at this time. However, the NAPTA organization is currently working towards identifying and finalizing these components for this field of study. I recently spoke with a NAPTA representative to inquire about the Oil and Gas coursework to which the representative expressed interest in collaborating with these two institutions to finalize the details for this field and for NAPTA.

## BPCC Proposal - Process Technology

BPCC is proposing the Process Technology degree pathway for their institution. The curriculum BPCC presented was reviewed by the Education Review Committee earlier this year and again earlier this week. Each of the 8 core courses identified by NAPTA was reviewed and compared with the courses entailed within BPCC's Process Technology proposed curriculum. Each of the 8 courses aligned very adequately with identified components outlined by NAPTA with few minor recommendations towards simply strengthening the coursework presented.

On behalf of the Education Review Committee, I'd like to make the following recommendations for each proposed program:

- SLCC
  - The Review Committee determined the Oil and Gas program presented by SLCC does not require a curriculum review as identified through NAPTA standards for the Oil and Gas sector at this time and therefore is able to move forward with its proposed Oil and Gas program to the Board of Supervisors. However, it was recommended that SLCC and BPCC contribute towards establishing these standards and guidelines for this field of study when and where possible in collaboration with NAPTA.
- BPCC
  - The Review Committee determined the Process Technology program as an adequate representation of the Process Technology coursework as outlined through NAPTA and recommend moving forward with BPCC's Process Technology program to the Board of Supervisors.

Please let me know if you have any questions regarding the topics listed above and hope you enjoy the rest of your day.

Sincerely,

David Lafargue  
Education Review Committee Chair