



## SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS PROGRAMS - CATALOG YEAR 2014 - 2015

### Find the Right Educational Degree Plan

There are two distinctly different ways to pursue your education at HCC. Each pattern has its own particular purpose, and its own advantages and disadvantages. Read the descriptions carefully to make an informed choice. You must choose one of the two following patterns: The *Academic*

*Transfer* pattern of education **OR** The *Workforce Career* pattern of education. For more information, visit our [College and Career Planner Guide](#).

### ACADEMIC DEGREE PLANS

Associate in Science . . . . .	2-3
Chemistry - Associate of Science . . . . .	4-5
Engineering Science - Associate of Science in Engineering Science (ASES). . . . .	6-7
Geology - Associate of Science (In Development) . . . . .	8-9
Mathematics - Associate of Science . . . . .	10-11
Physics - Associate of Science. . . . .	12-13

### WORKFORCE CAREERS

#### DRAFTING AND DESIGN ENGINEERING TECHNOLOGY

General Drafting - AAS . . . . .	14
General Drafting - Certificate Level I . . . . .	15
Architectural Drafting Specialization - AAS . . . . .	16
Architectural Drafting Specialization - Certificate Level I . . . . .	17
Civil Design Specialization - AAS . . . . .	18
Civil/Structural Drafting Specialization - Certificate Level I . . . . .	19
Electro - Mechanical Design Specialization - AAS . . . . .	20
Electro - Mechanical Design Specialization - Certificate Level I . . . . .	21
Piping Design Specialization - AAS. . . . .	22
Pipe Drafting Specialization - Certificate Level I . . . . .	23

#### ELECTRONICS ENGINEERING TECHNOLOGY

Biomedical Electronics Specialization - AAS . . . . .	24
Electrical Power Specialization - AAS . . . . .	25
Computer Engineering Technology Specialization - AAS . . . . .	26
Basic Electronics - Certificate Level I. . . . .	27

Computer Servicing/Networks - Certificate Level I. . . . .	28
--	----

#### ENVIRONMENTAL CONTROL TECHNOLOGIES

Engineering Technology - Sustainable and Renewable Energy - AAS . . . . .	29
Engineering Technology - Sustainable and Renewable Energy - Certificate Level I . . . . .	30

#### INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY

Instrumentation and Controls Engineering Technology - AAS . . . . .	31
Instrumentation and Controls Engineering Technology - Certificate Level I . . . . .	32
Solar Energy Technology: Photovoltaic - Certificate Level I . . . . .	33
Solar Energy Technology: Thermal - Certificate Level I . . . . .	34
Wind Energy Technology - Certificate Level I . . . . .	35

#### PETROLEUM ENGINEERING TECHNOLOGY

Petroleum Engineering Technology - AAS . . . . .	36-37
Petroleum Engineering Technology - Certificate Level I . . . . .	38
Petroleum Engineering Technology: Offshore Drilling Technician - Certificate Level I. . . . .	39

#### PROCESS TECHNOLOGY

Process Technology - AAS . . . . .	40
Process Technology - Process Operator - Certificate Level I . . . . .	41

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**ASSOCIATE IN SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>REQUIRED ACADEMIC CORE</b>									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
EDUC 1300 Learning Framework	3								
ENGL 1301 Composition I	3								
HIST #3## American History									
<i>(May choose from HIST 1301, 1302, 2301, 2328, 2381)</i>	3								
XXXX #3## Transferable Elective	3								
<b>A. MATH #3## Mathematics</b>	3								
<b>SEMESTER TOTAL</b>	<b>15</b>								
<b>SECOND SEMESTER</b>									
ENGL 1302 Composition II <b>OR</b>									
ENGL 2311 Technical and Industrial Correspondence and Report Writing	3								
HIST #3## American History									
<i>(May choose from HIST 1301, 1302, 2301, 2328, 2381)</i>	3								
<b>A. MATH #3## Mathematics</b>	3								
<b>B. XXXX #3## Natural Science Elective</b>	3								
<b>C. XXXX #3## Creative Arts Elective</b>	3								
<b>SEMESTER TOTAL</b>	<b>15</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
<b>D. XXXX #3## Language, Philosophy and Culture</b>	3								
<b>E. GOVT 2305 American Government I</b>	3								
<b>A. MATH #3## Mathematics</b>	3								
<b>(Continued on next page)</b>									

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**ASSOCIATE IN SCIENCE**

	HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
						Comment/Disapproval				
<b>B.</b>	XXXX #3## Natural Science Elective	3								
<b>F.</b>	XXXX #3## Social/Behavioral Science Elective	3								
	<b>SEMESTER TOTAL</b>	<b>15</b>								
	<b>SECOND SEMESTER</b>									
<b>E.</b>	GOVT 2306 American Government II	3								
<b>G.</b>	XXXX #3## Component Area Option <b><i>OR</i></b>									
	XXXX #3## Transferable Elective	3								
<b>B.</b>	XXXX #3## Natural Science Elective with Lab	4								
	XXXX #3## Transferable Elective	3								
	XXXX #2## Transferable Elective	2								
	<b>SEMESTER TOTAL</b>	<b>15</b>								
	<b>PROGRAM TOTAL</b>	<b>60</b>								

**ADDITIONAL COMMENTS & NOTES:**

*The student must earn a minimum 2.0 GPA on sixty (60) total college-level semester hours, must complete a minimum eighteen (18) hours of coursework in the Houston Community College, must complete TSI requirement unless exempt, and have an application to graduate on file in the Registrar's office in order to graduate.*

- A. Mathematics** May choose from: MATH 1314, MATH 1316, MATH 1324, MATH 1325, MATH, 1332, MATH 1342, MATH 1350, MATH 1442, MATH 2318, MATH 2320, MATH 2412, MATH 2413
- B. Natural Science:** May choose from ANTH 2301, ASTR 1303, ASTR 1304, ASTR 1403, ASTR 1404, BIOL 1308, BIOL 1309, BIOL 1322, BIOL 1406, BIOL 1407, CHEM 1105, CHEM 1305, CHEM 1405, CHEM 1411, CHEM 1412, CHEM 1413, ENVR 1301, GEOG 1301, GEOL, 1345, GEOL 134, GEOL 1403, GEOL 1404, PHYS 1305, PHYS 1401, PHYS 1402, PHYS 2325, PHYS 2326
- C. Creative Arts:** May choose ARTS 1301, ARTS 1303, ARTS 1304, DANC 2303, DRAM, 1310, DRAM 2361, DRAM 2366, ENGL 2307, ENGL 2308, HUMA 1301, MUSI 1301, MUSI 1306, MUSI 1310
- D. Language, Philosophy and Culture (3 hours) Choose One:** ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2342, ENGL 2343, ENGL 2351, HIST 2311, HIST 2312, HUMA 2319, PHIL 1301, PHIL 1304, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317
- E. Government:** May choose GOVT 2301, GOVT 2302 **before Fall 2013. Beginning Fall 2013**, choose GOVT 2305, 2306.
- F. Social/Behavioral Science:** May choose ANTH 2302, 2346, 2351; ECON 2301, 2302, 2311; GEOG 1302 ,1303, 2312; GOVT 2304; HIST 2389; PHIL 2307; PSYC 2301, 2389; SOCI 1301, 1306, 2301,2319, 2336, 2374;TECA 1354.
- G. Component Area Option:** ANTH 2101, ANTH 2302, ARAB 1411, ARAB 1412, CHIN 1411, CHIN 1412, COMM 1307, COSC 1436, DRAM 1351, FREN 1411, FREN 1412, GERM 1411, GERM 1412, JAPN 1411, JAPN 1412, KORE 1411, KORE 1412, MATH 2414, MATH 2415, PHED 1304, PHED 1306, PHIL 2303, PHYS 2125, PHYS 2126, SPAN 1411, SPAN 1412, SPCH 1315, SPCH 1318, VIET 1411, VIET 1412

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**CHEMISTRY- ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>SUGGESTED 2 YEAR PLAN</b>									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
EDUC 1300 Learning Framework	3								
ENGL 1301 Composition I	3								
XXXX #3## American History Elective	3								
MATH 2413 Calculus I	4								
CHEM 1411 General Chemistry I	4								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND SEMESTER - SPRING</b>									
ENGL 1302 Composition II	3								
XXXX #3## American History Elective	3								
MATH 2414 Calculus II	4								
CHEM 1412 General Chemistry II	4								
XXXX #3## Social/Behavioral Science Elective	3								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
HUMA #3## Elective*	3								
GOVT 2305 Federal Government (Federal Constitution & Topics)	3								
CHEM 2423 Organic Chemistry I	4								
PHYS 2325 University Physics I	3								
PHYS 2125 Physics Laboratory I	1								
<b>SEMESTER TOTAL</b>	<b>14</b>								
<b>(Continued on next page)</b>									

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**CHEMISTRY- ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
(Continued from page 1)									
<b>SECOND YEAR</b>									
<b>SECOND SEMESTER - SPRING</b>									
XXXX #3## Creative Arts Elective *	3								
GOVT 2306 Texas Government (Texas Constitution & Topics)	3								
CHEM 2425 Organic Chemistry II	4								
PHYS 2326 University Physics II	3								
PHYS 2126 Physics Laboratory II	1								
<b>SEMESTER TOTAL</b>	<b>14</b>								
<b>PROGRAM TOTAL</b>	<b>62</b>								

**ADDITIONAL COMMENTS & NOTES:**

<p><b>AS CHEMISTRY (MODIFIED CORE CURRICULUM)</b></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td>Student Success course</td> <td>EDUC 1300</td> <td>Learning Framework</td> <td align="right">3</td> </tr> <tr> <td>Written Communication</td> <td>ENGL 1301-1302</td> <td>English Comp I &amp; II</td> <td align="right">6</td> </tr> <tr> <td>Language, Philosophy &amp; Culture</td> <td></td> <td></td> <td align="right">3</td> </tr> <tr> <td>Creative Arts Elective</td> <td></td> <td></td> <td align="right">3</td> </tr> <tr> <td>American History Electives</td> <td></td> <td></td> <td align="right">6</td> </tr> <tr> <td>Government</td> <td>GOVT 2305/2306</td> <td>Federal/Texas Gov't.</td> <td align="right">6</td> </tr> <tr> <td>Mathematics</td> <td>MATH 2413</td> <td>Calculus I</td> <td align="right">4</td> </tr> <tr> <td>Natural Science Electives</td> <td>CHEM 1411-1412</td> <td>(**Includes labs)</td> <td align="right">6</td> </tr> <tr> <td>Social/Behavioral Science Elective</td> <td></td> <td></td> <td align="right">3</td> </tr> </table>	Student Success course	EDUC 1300	Learning Framework	3	Written Communication	ENGL 1301-1302	English Comp I & II	6	Language, Philosophy & Culture			3	Creative Arts Elective			3	American History Electives			6	Government	GOVT 2305/2306	Federal/Texas Gov't.	6	Mathematics	MATH 2413	Calculus I	4	Natural Science Electives	CHEM 1411-1412	(**Includes labs)	6	Social/Behavioral Science Elective			3	<p><b>MAJOR PREREQUISITES</b></p> <table style="width:100%; border-collapse: collapse;"> <tr> <td>MATH 2414</td> <td>Calculus II</td> <td align="right">4</td> </tr> <tr> <td>CHEM 2423</td> <td>Organic Chemistry I</td> <td align="right">4</td> </tr> <tr> <td>CHEM 2425</td> <td>Organic Chemistry II</td> <td align="right">4</td> </tr> <tr> <td>PHYS 2325</td> <td>University Physics I</td> <td align="right">4</td> </tr> <tr> <td>PHYS 2125</td> <td>Physics Laboratory I</td> <td align="right">4</td> </tr> <tr> <td>PHYS 2326</td> <td>University Physics II</td> <td align="right">4</td> </tr> <tr> <td>PHYS 2126</td> <td>Physics Laboratory II</td> <td align="right">4</td> </tr> <tr> <td colspan="2"></td> <td align="right"><b>60</b></td> </tr> </table> <p>*Missing 6 hours of Core Curriculum **Includes labs that are required for University transfer</p>	MATH 2414	Calculus II	4	CHEM 2423	Organic Chemistry I	4	CHEM 2425	Organic Chemistry II	4	PHYS 2325	University Physics I	4	PHYS 2125	Physics Laboratory I	4	PHYS 2326	University Physics II	4	PHYS 2126	Physics Laboratory II	4			<b>60</b>
Student Success course	EDUC 1300	Learning Framework	3																																																										
Written Communication	ENGL 1301-1302	English Comp I & II	6																																																										
Language, Philosophy & Culture			3																																																										
Creative Arts Elective			3																																																										
American History Electives			6																																																										
Government	GOVT 2305/2306	Federal/Texas Gov't.	6																																																										
Mathematics	MATH 2413	Calculus I	4																																																										
Natural Science Electives	CHEM 1411-1412	(**Includes labs)	6																																																										
Social/Behavioral Science Elective			3																																																										
MATH 2414	Calculus II	4																																																											
CHEM 2423	Organic Chemistry I	4																																																											
CHEM 2425	Organic Chemistry II	4																																																											
PHYS 2325	University Physics I	4																																																											
PHYS 2125	Physics Laboratory I	4																																																											
PHYS 2326	University Physics II	4																																																											
PHYS 2126	Physics Laboratory II	4																																																											
		<b>60</b>																																																											

\*1 American History (6 hours) **Choose Two:** HIST 1301, HIST 1302, HIST 2301, HIST 2328, HIST 2381

\*2 Language, Philosophy and Culture (3 hours) **Choose One:** ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2342, ENGL 2343, ENGL 2351, HIST 2311, HIST 2312, HUMA 2319, PHIL 1301, PHIL 1304, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317

\*3 Creative Arts (3 hours) **Choose One:** ARTS 1301, ARTS 1303, ARTS 1304, DANC 2303, DRAM 1310, DRAM 2361, DRAM 2366, ENGL 2307, ENGL 2308, HUMA 1301, MUSI 1301, MUSI 1306, MUSI 1310

\*4 Social and Behavioral Sciences (3 hours) **Choose One:** ANTH 2346, ANTH 2351, ECON 2301, ECON 2302, GEOG 1302, GEOG 1303, PSYC 2301, SOCI 1301, SOCI 1306, SOCI 2336

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**ENGINEERING SCIENCE - ASSOCIATE OF SCIENCE IN ENGINEERING SCIENCE (ASES)**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>REQUIRED ACADEMIC CORE</b>									
<b>SUGGESTED 2 YEAR PLAN</b>									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
HIST 1301 American History I	3								
ENGL 1301 Composition I	3								
MATH 2413 Calculus I	4								
CHEM 1411 General Chemistry I	4								
ENGR 1201 Introduction to Engineering	2								
<b>SEMESTER TOTAL</b>	<b>16</b>								
<b>SECOND SEMESTER - SPRING</b>									
ENGR 1204 Engineering Graphics	2								
ENGL 1302 Grammar and Composition II	3								
MATH 2414 Calculus II	4								
PHYS 2325 University Physics I	3								
PHYS 2125 University Physics I Laboratory	1								
GOVT 2306 Texas Government	3								
GOVT 2301 <i>may be substituted for GOVT 2306</i>									
<b>SEMESTER TOTAL</b>	<b>16</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
ENGR 2304 Programming for Engineers	3								
ECON 2301 Macroeconomics <b>OR</b>									
ECON 2302 Microeconomics	3								
ENGR 2301 Engineering Mechanics—Statics	3								
MATH 2415 Calculus III (Multi-Variable Calculus)	4								
<b>(Continued on next page)</b>									

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**ENGINEERING SCIENCE - ASSOCIATE OF SCIENCE IN ENGINEERING SCIENCE (ASES)**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>(Continued from page 1)</b>									
PHYS 2326 University Physics II	3								
PHYS 2126 University Physics II Laboratory	1								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND SEMESTER - SPRING</b>									
ENGR 2405 Electrical Circuit I	4								
MATH 2320 Differential Equations	3								
XXXX #3## Engineering Elective*	3								
XXXX #3## Creative Arts Core**	3								
XXXX #3## Language, Philosophy and Culture***	3								
<b>SEMESTER TOTAL</b>	<b>16</b>								
<b>PROGRAM TOTAL</b>	<b>65</b>								

**ADDITIONAL COMMENTS & NOTES:**

- \* **Engineering Elective** - Choose from: Students interested in pursuing mechanical or civil engineering should take **ENGR 2302: Engineering Mechanics—Dynamics** as the engineering elective. Students interested in pursuing electrical engineering should take **COSC 1436** as the engineering elective. Students interested in pursuing industrial engineering should ENGR 23xx—Engineering Economics as the engineering elective.  
**Note:** Industrial engineering as a completion degree is not currently offered by UTT.
- \*\* **Creative Arts Core** - Choose from: **ARTS 1301** Art Appreciation, **DRAM 1310** Introduction to Theatre or **MUSI 1306** Music Appreciation
- \*\*\* **Language, Philosophy and Culture (3 hours) Choose One:** ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2342, ENGL 2343, ENGL 2351, HIST 2311, HIST 2312, HUMA 2319, PHIL 1301, PHIL 1304, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**GEOLOGY - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
<b>THIS PLAN IS CURRENTLY IN DEVELOPMENT AND WILL BE COMING SOON.</b>									



NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**GEOLOGY - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
THIS PLAN IS CURRENTLY IN DEVELOPMENT AND WILL BE COMING SOON.									

**ADDITIONAL COMMENTS & NOTES:**

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**MATHEMATICS - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>SUGGESTED 2 YEAR PLAN</b>									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
EDUC 1300 Learning Framework	3								
ENGL 1301 Composition I	3								
CHEM 1411 General Chemistry I	4								
MATH 2412 Precalculus	4								
<b>SEMESTER TOTAL</b>	<b>14</b>								
<b>SECOND SEMESTER - SPRING</b>									
ENGL 1302 Composition II	3								
CHEM 1412 General Chemistry II	4								
MATH 2413 Calculus I	4								
XXXX #3## American History Elective *1	3								
XXXX #3## Language, Philosophy and Culture Elective *2	3								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
MATH 2414 Calculus II	4								
GOVT 2305 Federal Government (Federal Constitution & Topics)	3								
XXXX #3## Creative Arts Elective *3	3								
PHYS 2325 University Physics I	3								
PHYS 2125 Physics Laboratory I									
<b>SEMESTER TOTAL</b>	<b>13</b>								
<b>(Continued on next page)</b>									

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**MATHEMATICS - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
(Continued from page 1)									
<b>SECOND YEAR</b>									
<b>SECOND SEMESTER - SPRING</b>									
GOVT 2306 Texas Government (Texas Constitution & Topics)	3								
XXXX #3## American History Elective *1	3								
MATH 2415 Calculus III	4								
XXXX #3## Social/Behavioral Science Elective *4	3								
PHYS 2326 University Physics II	3								
PHYS 2126 Physics Laboratory II									
<b>SEMESTER TOTAL</b>	<b>16</b>								
<b>PROGRAM TOTAL</b>	<b>60</b>								

**ADDITIONAL COMMENTS & NOTES:**

**AS MATHEMATICS (FULL CORE CURRICULUM)**

Student Success course	EDUC 1300	Learning Framework	3
Written Communication	ENGL 1301-1302	English Comp I & II	6
Language, Philosophy & Culture*			3
Creative Arts Elective*			3
American History Electives*			6
Government	GOVT 2305/2306	Federal/Texas Gov't.	6
Mathematics	MATH 2412	Precalculus	4
Natural Science Electives	CHEM 1411-1412	(**Includes labs)	8
Social/Behavioral Science Elective*			3

**MAJOR PREREQUISITES**

MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
PHYS 2125	University Physics I**	
PHYS 2325	University Physics I	3
PHYS 2126	University Physics II**	
PHYS 2326	University Physics II	3
		<b>60</b>

\*\*Includes labs that are required for University transfer

- \*1 American History (6 hours) **Choose Two:** HIST 1301, HIST 1302, HIST 2301, HIST 2328, HIST 2381
- \*2 Language, Philosophy and Culture (3 hours) **Choose One:** ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2342, ENGL 2343, ENGL 2351, HIST 2311, HIST 2312, HUMA 2319, PHIL 1301, PHIL 1304, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317
- \*3 Creative Arts (3 hours) **Choose One:** ARTS 1301, ARTS 1303, ARTS 1304, DANC 2303, DRAM 1310, DRAM 2361, DRAM 2366, ENGL 2307, ENGL 2308, HUMA 1301, MUSI 1301, MUSI 1306, MUSI 1310
- \*4 Social and Behavioral Sciences (3 hours) **Choose One:** ANTH 2346, ANTH 2351, ECON 2301, ECON 2302, GEOG 1302, GEOG 1303, PSYC 2301, SOCI 1301, SOCI 1306, SOCI 2336

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**PHYSICS - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>SUGGESTED 2 YEAR PLAN</b>									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
EDUC 1300 Learning Framework	3								
ENGL 1301 Composition I	3								
CHEM 1411 General Chemistry I	4								
MATH 2412 Precalculus	4								
XXXX #3## American History Elective *1	3								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND SEMESTER - SPRING</b>									
ENGL 1302 Composition II	3								
CHEM 1412 General Chemistry II	4								
MATH 2413 Calculus I	4								
XXXX #3## American History Elective *1	3								
XXXX #3## Language, Philosophy and Culture Elective *2	3								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER - FALL</b>									
MATH 2414 Calculus II	4								
GOVT 2305 Federal Government (Federal Constitution & Topics)	3								
XXXX #3## Creative Arts Elective *3	3								
PHYS 2325 University Physics I	3								
PHYS 2125 Physics Laboratory I	1								
<b>SEMESTER TOTAL</b>	<b>14</b>								
<b>(Continued on next page)</b>									

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**PHYSICS - ASSOCIATE OF SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
<i>(Continued from page 1)</i>									
<b>SECOND YEAR</b>									
<b>SECOND SEMESTER - SPRING</b>									
GOVT 2306 Texas Government (Texas Constitution & Topics)	3								
XXXX #3## Social/Behavioral Science Elective *4	3								
PHYS 2326 University Physics II	3								
PHYS 2126 Physics Laboratory II	1								
MATH 2415 Calculus III	4								
<b>SEMESTER TOTAL</b>	<b>14</b>								
<b>PROGRAM TOTAL</b>	<b>62</b>								

**ADDITIONAL COMMENTS & NOTES:**

**AS PHYSICS (MODIFIED CORE CURRICULUM)**

Student Success course	EDUC 1300	Learning Framework	3
Written Communication	ENGL 1301-1302	English Comp I & II	6
Language, Philosophy & Culture*			3
Creative Arts Elective*			3
American History Electives*			6
Government	GOVT 2305/2306	Federal/Texas Gov't.	6
Mathematics	MATH 2413	Calculus I	4
Natural Science Electives	CHEM 1411-1412	**Includes labs	6
Social/Behavioral Science Elective*			3

**MAJOR PREREQUISITES**

MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
MATH 2415	Calculus III	4
PHYS 2325	University Physics I	4
PHYS 2125	Physics Laboratory I	4
PHYS 2326	University Physics II	4
PHYS 2126	Physics Laboratory II	4
<b>**Includes labs that are required for University transfer</b>		<b>60</b>

\*1 American History (6 hours) **Choose Two:** HIST 1301, HIST 1302, HIST 2301, HIST 2328, HIST 2381  
 \*2 Language, Philosophy and Culture (3 hours) **Choose One:** ENGL 2322, ENGL 2323, ENGL 2327, ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2342, ENGL 2343, ENGL 2351, HIST 2311, HIST 2312, HUMA 2319, PHIL 1301, PHIL 1304, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317  
 \*3 Creative Arts (3 hours) **Choose One:** ARTS 1301, ARTS 1303, ARTS 1304, DANC 2303, DRAM 1310, DRAM 2361, DRAM 2366, ENGL 2307, ENGL 2308, HUMA 1301, MUSI 1301, MUSI 1306, MUSI 1310  
 \*4 Social and Behavioral Sciences (3 hours) **Choose One:** ANTH 2346, ANTH 2351, ECON 2301, ECON 2302, GEOG 1302, GEOG 1303, PSYC 2301, SOCI 1301, SOCI 1306, SOCI 2336

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>		<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>	

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - GENERAL DRAFTING - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
DFTG 1405 Technical Drafting	4								
DFTG 1309 Basic Computer-Aided Drafting	3								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
DFTG 2319 Intermediate Computer-Aided Drafting	3								
DFTG 1358 Electrical/ Electronics Drafting <b>OR</b>									
DFTG 1329 Electro-Mechanical Drafting	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing <b>OR</b>									
ENGL 1302 Composition II	3								
DFTG 1333 Mechanical Drafting	3								
XXXX #3## Social/Behavioral Science Gen. Ed Elective	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
DFTG 2302 Machine Drafting	3								
DFTG 2323 Pipe Drafting	3								
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)	3								
DFTG 2317 Descriptive Geometry	3								
MATH 1316 Plane Trigonometry	3								
<b>SECOND SEMESTER</b>									
DFTG 2330 Civil Drafting	3								
ARCE 1352 Structural Drafting	3								
DFTG 1317 Architectural Drafting- Residential	3								
DFTG 2335 Advanced Technologies in.Mechanical Design and Drafting <b>OR</b>									
DFTG #3## Drafting Elective	3								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
<b>PROGRAM TOTAL</b>	<b>60</b>								

## HOUSTON COMMUNITY COLLEGE SYSTEM EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - GENERAL DRAFTING - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr	Transfer	Substitute	Substitute (SU)	Term	Credits	Grade	Approval	Date
	hr	Institution	Course	Transfer (TR)	Comment/Disapproval			Signature	
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>9</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
DFTG 1309 Basic Computer-Aided Drafting	3								
DFTG 1405 Technical Drafting	4								
<b>SECOND SEMESTER</b>	<b>12</b>								
DFTG 1358 Electrical/ Electronics Drafting <i>OR</i>									
DFTG 1329 Electro-Mechanical Drafting	3								
DFTG 2319 Intermediate Computer-Aided Drafting <i>OR</i>									
DFTG 1310 Specialized Basic Computer-Aided Drafting	3								
DFTG 1333 Mechanical Drafting	3								
DFTG 1317 Architectural Drafting- Residential	3								
<b>THIRD SEMESTER</b>	<b>9</b>								
DFTG 2323 Pipe Drafting	3								
DFTG 2330 Civil Drafting	3								
ARCE 1352 Structural Drafting	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - ARCHITECTURAL DRAFTING SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enroll.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
DFTG 1405 Technical Drafting	4								
DFTG 1309 Basic Computer-Aided Drafting	3								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
DFTG 2319 Intermediate Computer-Aided Drafting	3								
DFTG 1317 Architectural Drafting-Residential	3								
XXXX #3## Social/Behavioral Science Gen. Ed Elective	3								
MATH 1316 Plane Trigonometry	3								
ARCE 1352 Structural Drafting	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
DFTG 2300 Intermediate Architectural Drafting-Residential	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing <b>OR</b>									
ENGL 1302 Composition II	3								
DFTG 1392 Special Topics in Architectural Drafting and Architectural CAD/CADD	3								
DFTG 1376 Revit Residential	3								
<b>SECOND SEMESTER</b>									
DFTG 2331 Advanced Technologies in Architectural Design and Drafting	3								
ARCE 2352 Mechanical and Electrical Systems	3								
DFTG 2330 Civil Drafting	3								
DFTG 2328 Architectural Drafting- Commercial Residential	3								
DFTG #3## Drafting Elective	3								
<b>PROGRAM TOTAL</b>	<b>60</b>								



**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - ARCHITECTURAL DRAFTING SPECIALIZATION - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>9</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
DFTG 1309 Basic Computer-Aided Drafting	3								
DFTG 1405 Technical Drafting	4								
<b>SECOND SEMESTER</b>	<b>12</b>								
ARCE 1352 Structural Drafting	3								
DFTG 1317 Architectural Drafting-Residential	3								
DFTG 2319 Intermediate Computer-Aided Drafting	3								
DFTG 2328 Architectural Drafting- Commercial	3								
<b>THIRD SEMESTER</b>	<b>9</b>								
DFTG 1376 Revit Residential	3								
DFTG 2330 Civil Drafting	3								
ARCE 2352 Mechanical and Electrical Systems	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - CIVIL DESIGN DRAFTING SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
	<b>15</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
DFTG 1405 Technical Drafting	4								
DFTG 1309 Basic Computer-Aided Drafting	3								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
	<b>15</b>								
DFTG 2319 Intermediate Computer-Aided Drafting	3								
SRVY 1301 Introduction to Surveying <u>OR</u>									
DFTG #3## Drafting Elective	3								
DFTG 2317 Descriptive Geometry	3								
DFTG 2330 Civil Drafting	3								
XXXX #3## Social/Behavioral Science/Gen. Ed. Elective	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
	<b>15</b>								
SRVY 1341 Land Surveying	3								
DFTG 2321 Topographical Drafting	3								
DFTG 1310 Specialized Basic Computer Aided Drafting	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing <u>OR</u>									
ENGL 1302 Composition II	3								
ARCE 1352 Structural Drafting	3								
<b>SECOND SEMESTER</b>									
	<b>15</b>								
MATH 1316 Plane Trigonometry	3								
DFTG 2370 Intermediate CAD (Microstation)	3								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
SRVY 2348 Plane Surveying	3								
DFTG 1393 Special Topics in Civil Drafting and Civil Engineering CAD/CADD	3								
<b>PROGRAM TOTAL</b>	<b>60</b>								

## HOUSTON COMMUNITY COLLEGE SYSTEM EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - CIVIL DESIGN DRAFTING SPECIALIZATION - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
DFTG 1309 Basic Computer-Aided Drafting	3								
DFTG 1405 Technical Drafting	4								
<b>SECOND SEMESTER</b>									
DFTG 1310 Specialized Basic Computer Aided Drafting	3								
DFTG 2319 Intermediate Computer-Aided Drafting	3								
SRVY 1301 Introduction to Surveying	3								
ARCE 1352 Structural Drafting	3								
<b>THIRD SEMESTER</b>									
SRVY 1341 Land Surveying	3								
DFTG 1393 Special topics in Civil Drafting and Civil Engineering	3								
DFTG 2330 Civil Drafting	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - ELECTRO-MECHANICAL DESIGN SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enroll.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
DFTG 1405 Technical Drafting	4								
DFTG 1309 Basic Computer-Aided Drafting	3								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
DFTG 1333 Mechanical Drafting	3								
DFTG 2319 Intermediate Computer-Aided Drafting	3								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
DFTG 1329 Electro-mechanical Drafting	3								
MATH 1316 Plane Trigonometry	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)	3								
DFTG 2317 Descriptive Geometry	3								
DFTG 1358 Electrical/Electronics Drafting	3								
DFTG 2302 Machine Drafting	3								
XXXX #3## Social/Behavioral Science Gen. Ed Elective	3								
<b>SECOND SEMESTER</b>									
DFTG 2306 Machine Design	3								
DFTG 2335 Advanced Technologies in Mechanical Design and Drafting <u>OR</u>									
DFTG 2340 Solid Modeling/Design	3								
DFTG 2305 Printed Circuit Board Design <u>OR</u>									
DFTG #3## Drafting Elective	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing <u>OR</u>									
ENGL 1302 Composition II	3								
DFTG 2358 Advanced Machine Design	3								
<b>PROGRAM TOTAL</b>	<b>60</b>								

## HOUSTON COMMUNITY COLLEGE SYSTEM EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - ELECTRO-MECHANICAL DESIGN SPECIALIZATION - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr	Transfer	Substitute	Substitute (SU)	Term	Credits	Grade	Approval	Date
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>9</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
DFTG 1309 Basic Computer-Aided Drafting	3								
DFTG 1405 Technical Drafting	4								
<b>SECOND SEMESTER</b>	<b>12</b>								
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)	3								
DFTG 2319 Intermediate Computer-Aided Drafting	3								
DFTG 1333 Mechanical Drafting	3								
DFTG 1358 Electrical/Electronics Drafting	3								
<b>THIRD SEMESTER</b>	<b>9</b>								
DFTG 2302 Machine Drafting	3								
DFTG 2335 Advanced Technologies in Mechanical Design and Drafting <u>OR</u>									
DFTG 2340 Solid Modeling/Design	3								
DFTG 1329 Electromechanical Drafting	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - PIPING DESIGN DRAFTING SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
DFTG 1405 Technical Drafting	4								
DFTG 1309 Basic Computer-Aided Drafting	3								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
DFTG 2319 Intermediate Computer-Aided Drafting	3								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
DFTG 2323 Pipe Drafting	3								
DFTG 1333 Mechanical Drafting	3								
DFTG 2317 Descriptive Geometry	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
DFTG 1310 Specialized Basic Computer Aided Drafting (CAD)	3								
DFTG 2308 Instrumentation Drafting	3								
DFTG 2330 Civil Drafting	3								
MATH 1316 Plane Trigonometry	3								
XXXX #3## Social/Behavioral Science General Ed. Elective	3								
<b>SECOND SEMESTER</b>									
ENGL 2311 Technical and Industrial Correspondence and Report Writing <b>OR</b>									
ENGL 1302 Composition II	3								
DFTG 2340 Solid Modeling Design <b>OR</b>									
XXXX #3## Elective	3								
DFTG 2345 Advanced Pipe Drafting	3								
DFTG 2373 Piping Design Management Systems (PDMS)	3								
ARCE 1352 Structural Drafting	3								
<b>PROGRAM TOTAL</b>	<b>60</b>								

## HOUSTON COMMUNITY COLLEGE SYSTEM EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

**DRAFTING AND DESIGN ENGINEERING TECHNOLOGY - PIPING DESIGN DRAFTING SPECIALIZATION - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
DFTG 1309 Basic Computer-Aided Drafting	3								
DFTG 1405 Technical Drafting	4								
<b>SECOND SEMESTER</b>									
DFTG 2319 Intermediate Computer-Aided Drafting	3								
DFTG 2323 Pipe Drafting	3								
DFTG 1333 Mechanical Drafting	3								
ARCE 1352 Structural Drafting	3								
<b>THIRD SEMESTER</b>									
DFTG 2308 Instrumentation Drafting	3								
DFTG 1396 Special Topics in Computer Graphics <b><u>OR</u></b>									
DFTG 2371 Advanced Technologies in Process Plant Design (Autoplant)	3								
DFTG 2345 Advanced Pipe Drafting	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**ELECTRONICS ENGINEERING TECHNOLOGY - BIOMEDICAL ELECTRONICS SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
MATH 1314 College Algebra	3								
CETT 1321 Electronic Fabrication	3								
CPMT 1449 Computer Networking Technology	4								
<b>SECOND SEMESTER</b>									
CETT 1403 DC Circuits	4								
CETT 1425 Digital Fundamentals	4								
MATH 1316 Plane Trigonometry	3								
XXXX #3## Social/Behavioral Science General Ed. Elective	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing	3								
<b>THIRD SEMESTER</b>									
PHYS 1401 College Physics I	4								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
CETT 1405 AC Circuits	4								
CETT 1429 Solid State Devices	4								
BIOM 1309 Applied Biomedical Equipment Technology	3								
CETT 1331 Programming for Discrete Electronic Devices	3								
<b>SECOND SEMESTER</b>									
BIOM 2331 Biomedical Clinical Instrumentation	3								
MDCA 1313 Medical Terminology	3								
BIOM 2489 Internship - Biomedical Technology/Technician	4								
CETT 1457 Linear Integrated Circuits	4								
<b>PROGRAM TOTAL</b>	<b>64</b>								



**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**ELECTRONICS ENGINEERING TECHNOLOGY - ELECTRICAL POWER TECHNOLOGY SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking									
EDUC 1300 <b>OR</b> Learning Framework	3								
MATH 1314 College Algebra	3								
CETT 1321 Electronic Fabrication	3								
CPMT 1449 Computer Networking Technology	4								
<b>SECOND SEMESTER</b>									
CETT 1403 DC Circuits	4								
CETT 1425 Digital Fundamentals	4								
MATH 1316 Plane Trigonometry	3								
XXXX #3## Social/Behavioral Science General Ed. Elective	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing	3								
<b>THIRD SEMESTER</b>									
PHYS 1401 College Physics I	4								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
CETT 1405 AC Circuits	4								
CETT 1429 Solid State Devices	4								
CETT 1331 Programming for Discrete Electronic Devices	3								
RBTC 1301 Programmable Logic Controllers	3								
<b>SECOND SEMESTER</b>									
XXXX #4## Program - Related Elective	4								
ELPT 1451 Electrical Machines	4								
CETT 1457 Linear Integrated Circuits	4								
<b>PROGRAM TOTAL</b>	<b>63</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER ENGINEERING TECHNOLOGY SPECIALIZATION - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
ENGL 1301 Composition I	3								
MATH 1314 College Algebra	3								
CETT 1321 Electronic Fabrication	3								
CPMT 1449 Computer Networking Technology	4								
<b>SECOND SEMESTER</b>									
CETT 1403 DC Circuits	4								
CETT 1425 Digital Fundamentals	4								
MATH 1316 Plane Trigonometry	3								
XXXX #3## Social/Behavioral Science General Ed. Elective	3								
ENGL 2311 Technical and Industrial Correspondence and Report Writing	3								
<b>THIRD SEMESTER</b>									
PHYS 1401 College Physics I	4								
XXXX #3## Program - Related Elective	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
CETT 1405 AC Circuits	4								
CETT 1429 Solid State Devices	4								
CETT 1331 Programming for Discrete Electronic Devices	3								
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
<b>SECOND SEMESTER</b>									
CETT 1445 Microprocessor	4								
XXXX #4## Program - Related Elective	4								
CETT 1457 Linear Integrated Circuits**	4								
<b>PROGRAM TOTAL</b>	<b>65</b>								

The \*\*capstone course is CETT 1457 - Linear Integrated Circuits

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>		<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>	

**ELECTRONICS ENGINEERING TECHNOLOGY - BASIC ELECTRONICS - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST SEMESTER</b>	<b>12</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
MATH 1314 College Algebra	3								
CETT 1321 Electronic Fabrication	3								
CPMT 1449 Computer Networking Technology	4								
<b>SECOND SEMESTER</b>	<b>11</b>								
CETT 1403 DC Circuits	4								
CETT 1425 Digital Fundamentals	4								
MATH 1316 Plane Trigonometry	3								
<b>THIRD SEMESTER</b>	<b>19</b>								
CETT 1405 AC Circuits	4								
CETT 1429 Solid State Devices**	4								
CPMT 1303 Introduction to Computer Technology	3								
XXXX #4## Program Related Elective	4								
XXXX #4## Program Related Elective	4								
<b>PROGRAM TOTAL</b>	<b>42</b>								

Updated:  
 \_\_\_ FA \_\_\_ VA

**HOUSTON COMMUNITY COLLEGE SYSTEM  
 EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER SERVICING/NETWORKS SPECIALIZATION - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST SEMESTER</b>	<b>12</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
CETT 1321 Electronic Fabrication	3								
TECM 1301 Industrial Mathematics	3								
XXXX #4## Program-Related Elective	4								
<b>SECOND SEMESTER</b>	<b>15</b>								
XXXX #4## Program-Related Elective	4								
XXXX #4## Program-Related Elective	4								
CPMT 1303 Introduction to Computer Technology	3								
CPMT 1449 Computer Networking Technology**	4								
<b>PROGRAM TOTAL</b>	<b>27</b>								

The \*\*capstone course is CPMT 1449 Computer Networking Technology.

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**ENGINEERING TECHNOLOGY - SUSTAINABLE AND RENEWABLE ENERGY - AAS**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enroll.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>8</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
CPMT 1303 Introduction to Computer Technology	3								
PTAC 1302 Introduction to Process Technology	3								
<b>SECOND SEMESTER</b>	<b>13</b>								
PTRT 1301 Introduction to Petroleum Industry	3								
SOLR 1370 Principles of Solar Photovoltaic	3								
WIND 1300 Introduction to Wind Energy	3								
CPMT 1449 Computer Networking Technology	4								
<b>THIRD SEMESTER</b>	<b>7</b>								
PTRT 1470 Petroleum Data Management I - Exploration	4								
PTRT 1370 Petroleum Geology	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>	<b>13</b>								
PTAC 1308 Safety, Health, and Environment I	3								
PTAC 1354 Industrial Processes	3								
ENGL 1301 Composition I	3								
SCIT 1414 Applied General Chemistry I <b>OR</b>									
CHEM 1411 General Chemistry I	4								
<b>SECOND SEMESTER</b>	<b>14</b>								
PTRT 1471 Exploration and Production I	4								
XXXX #3## Social/Behavioral Science/General Ed. Elective	3								
PTAC 1350 Industrial Economics	3								
PHYS 1401 College Physics I <b>OR</b>									
SCIT 1418 Applied Physics	4								
<b>THIRD SEMESTER</b>	<b>6</b>								
MATH 1314 College Algebra <b>OR</b>									
TECM 1301 Industrial Mathematics	3								
XXXX #3## Arts/Humanities/General Education Elective	3								
<b>PROGRAM TOTAL</b>	<b>61</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>		<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>	

**ENGINEERING TECHNOLOGY - SUSTAINABLE AND RENEWABLE ENERGY - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>8</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
CPMT 1303 Introduction to Computer Technology	3								
PTAC 1302 Introduction to Process Technology	3								
<b>SECOND SEMESTER</b>	<b>9</b>								
PTRT 1301 Introduction to Petroleum Industry	3								
SOLR 1370 Principles of Solar Photovoltaic	3								
WIND 1300 Introduction to Wind Energy	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>	<b>3</b>								
PTAC 1308 Safety, Health, and Environment I	3								
<b>SECOND SEMESTER</b>	<b>7</b>								
PTAC 1350 Industrial Economics	3								
SCIT 1418 Applied Physics	4								
<b>THIRD SEMESTER</b>	<b>3</b>								
TECM 1301 Industrial Mathematics	3								
<b>PROGRAM TOTAL</b>	<b>30</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enroll.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
INTC 1312 Instrumentation and Safety	3								
PTAC 1308 Safety, Health, and Environment I	3								
CETT 1403 DC Circuits	4								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
INTC 1456 Instrumentation Calibration	4								
SPCH #3## Speech Elective	3								
MATH 1316 Trigonometry	3								
INTC 1441 Principles of Automatic Control	4								
CPMT 1449 Computer Networking Technology <i>OR</i>									
ITNW 1425 Fundamentals of Networking Technologies <i>OR</i>									
ITCC 1401 Cisco Exploration I - Networking Fundamentals	4								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
INTC 1343 Application of Industrial Automatic Controls	3								
INTC 2330 Instrumentation Systems Troubleshooting	3								
XXXX #3## Program Related Elective	3								
PHYS 1401 College Physics	4								
<b>SECOND SEMESTER</b>									
XXXX #3## Humanities/Fine Arts General Ed. Elective	3								
XXXX #3## Social/Behavioral Science General Ed. Elective	3								
RBTC 1301 Programmable Logic Controllers	3								
INTC 2370 Linking Process Control Systems	3								
INTC 2336 Distributed Control & Programmable Logic <i>OR</i>									
INTC 2380 Cooperative Education-Instrumentation Technology/Technician	3								
<b>PROGRAM TOTAL</b>	<b>61</b>								

The capstone course is INTC 2336, Distributed Control and Programmable Logic or INTC 2380, Cooperative Education - Instrumentation Technology/Technician

HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

NAME:		SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:		TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY - CERTIFICATE: LEVEL I

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
TSI testing is required prior to first enroll.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
<b>15</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
INTC 1312 Instrumentation and Safety	3								
PTAC 1308 Safety, Health, and Environment I	3								
CETT 1403 DC Circuits	4								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>									
<b>11</b>									
INTC 1456 Instrumentation Calibration	4								
INTC 1441 Principles of Automatic Control	4								
MATH 1316 Trigonometry	3								
<b>THIRD SEMESTER</b>									
<b>16</b>									
INTC 1343 Application of Industrial Automatic Controls	3								
RBTC 1301 Programmable Logic Controllers	3								
INTC 2370 Linking Process Control Systems	3								
INTC 2336 Distributed Control and Programmable Logic	3								
XXXX #4## Approved Departmental Elective	4								
<b>PROGRAM TOTAL</b>	<b>42</b>								



**Updated:**  
 \_\_\_ FA \_\_\_ VA

**HOUSTON COMMUNITY COLLEGE SYSTEM  
 EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY - SOLAR ENERGY TECHNOLOGY - PHOTOVOLTAIC - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr	Transfer	Substitute	Substitute (SU)	Term	Credits	Grade	Approval Signature	Date
	hr	Institution	Course	Transfer (TR)	Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>14</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
SOLR 1370 Principles of Solar Photovoltaic	3								
SOLR 1371 Solar Safety Operations	3								
MATH 1314 College Algebra	3								
SOLR 1372 Off-Grid Solar Energy	3								
<b>SECOND SEMESTER</b>	<b>15</b>								
SCIT 1418 Applied Physics	4								
SOLR 1470 PV Installation Maintenance & Troubleshooting	4								
ELPT 1457 Industrial Wiring	4								
SOLR 1373 Solar Energy Systems	3								
<b>THIRD SEMESTER</b>	<b>7</b>								
ELPT 1364 Practicum-Electrical and Power Transmission Installation/Installer, General <b>OR</b>									
ELPT 1391 Special Topics in Electrical and Power Transmission Installer, General	3								
SOLR 1471 Photovoltaic Electrical Systems	4								
<b>PROGRAM TOTAL</b>	<b>36</b>								

<b>Updated:</b>		<b>HOUSTON COMMUNITY COLLEGE SYSTEM</b>						Page 1 of 1		
___ FA ___ VA		<b>EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION</b>								
<b>NAME:</b>		<b>SID#:</b>		<b>TEL#:</b>		<b>EMAIL:</b>		<b>DATE:</b>		
<b>COLLEGE:</b>			<b>COU/ADV:</b>			<b>TEL#:</b>		<b>EMAIL:</b>		
								<b>CAT YR: 8/15/14-8/14/15</b>		
<b>INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY - SOLAR ENERGY TECHNOLOGY-THERMAL - CERTIFICATE: LEVEL I</b>										
HCCS Course Requirement		cr	Transfer	Substitute	Substitute (SU)	Term	Credits	Grade	Approval	Date
		hr	Institution	Course	Transfer (TR)	Comment/Disapproval		Signature		
<b>FIRST YEAR</b>										
<b>FIRST SEMESTER</b>		<b>11</b>								
LEAD	1200	Workforce Development with Critical Thinking	2							
SOLR	1374	Principles of Solar Thermal Technology	3							
SOLR	1371	Solar Safety Operations	3							
MATH	1314	College Algebra	3							
<b>SECOND SEMESTER</b>		<b>10</b>								
SCIT	1418	Applied Physics	4							
SOLR	1372	Off-Grid Solar Energy	3							
CNBT	1302	Mechanical, Plumbing & Electrical Systems								
		in Construction I	3							
<b>THIRD SEMESTER</b>		<b>7</b>								
ELPT	1364	Practicum-Electrical and Power Transmission								
		Installation/Installer, General <i><u>OR</u></i>								
ELPT	1391	Special Topics in Electrical and Power								
		Transmission Installer, General	3							
SOLR	1472	Solar Thermal Installation Maintenance and								
		Troubleshooting	4							
<b>PROGRAM TOTAL</b>		<b>28</b>								

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

INSTRUMENTATION AND CONTROLS ENGINEERING TECHNOLOGY - WIND ENERGY TECHNOLOGY - CERTIFICATE: LEVEL I									
HCCS Course Requirement	cr	Transfer	Substitute	Substitute (SU)	Term	Credits	Grade	Approval Signature	Date
	hr	Institution	Course	Transfer (TR)	Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>	<b>16</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
CETT 1402 Electricity Principles	4								
WIND 1300 Introduction to Wind Energy	3								
CETT 1409 DC-AC Circuits	4								
MATH 1314 College Algebra	3								
<b>SECOND SEMESTER</b>	<b>16</b>								
WIND 2310 Wind Turbine Materials and Electro-Mechanical Equipment	3								
ELMT 1305 Basic Fluid Power	3								
SCIT 1418 Applied Physics	4								
ENGL 1301 Composition I	3								
WIND 1302 Wind Safety	3								
<b>THIRD SEMESTER</b>	<b>4</b>								
WIND 2459 Wind Power Delivery System	4								
<b>PROGRAM TOTAL</b>	<b>36</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**PETROLEUM ENGINEERING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
PTRT 1301 Introduction to Petroleum Industry	3								
MATH 1314 College Algebra	3								
XXXX #3## General Education Elective	3								
CPMT 1303 Introduction to Computer Technology	3								
PTAC 1308 Safety, Health, and Environment I	3								
<b>SEMESTER TOTAL</b>	<b>17</b>								
<b>SECOND SEMESTER</b>									
PTRT 1470 Petroleum Data Management I- Exploration	4								
PTRT 1370 Petroleum Geology	3								
<b>SEMESTER TOTAL</b>	<b>7</b>								
<b>THIRD SEMESTER</b>									
PTRT 1472 Petroleum Data Management II- Drilling and Production	4								
PTRT 2373 Principles of Enhanced Oil and Gas Recovery and Hydraulic Fracturing	3								
<b>SEMESTER TOTAL</b>	<b>7</b>								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
PTRT 1473 Exploration and Production II	4								
MATH 1325 Elements of Calculus with Applications	3								
PTRT 2370 Petroleum Operations	3								
XXXX #3## Approved Humanities/ Fine Arts General Ed. Elective	3								
XXXX #3## General Education Elective	3								
<b>SEMESTER TOTAL</b>	<b>16</b>								

(Continued on Page 2)

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>		<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>	

**PETROLEUM ENGINEERING TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>(Continued from Page 1)</b>									
<b>SECOND SEMESTER</b>									
PTRT 2331 Well Completions	3								
XXXX #3## Approved Social/ Behavioral Science General Education. Elective	3								
PTRT 2423 Natural Gas Production	4								
<b>SEMESTER TOTAL</b>	<b>10</b>								
<b>THIRD SEMESTER</b>									
PTRT 2372 Internship/ Petroleum Technology/ Technician**	3								
PTRT 2470 Petroleum Data Management III- Facilities and Performance	4								
<b>SEMESTER TOTAL</b>	<b>7</b>								
<b>PROGRAM TOTAL</b>	<b>64</b>								

The \*\*capstone course is PTRT 2372 - Internship/Petroleum Technology/Technician.

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>		<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>	

**PETROLEUM ENGINEERING TECHNOLOGY - CERTIFICATE - LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
PTRT 1301 Introduction to Petroleum Industry	3								
TECM 1301 Industrial Mathematics	3								
PTAC 1308 Safety, Health, and Environment I	3								
CPMT 1303 Introduction to Computer Technology	3								
<b>SECOND SEMESTER</b>									
PTRT 1470 Petroleum Data Management I- Exploration	4								
PTAC 1354 Industrial Processes	3								
PTRT 1471 Exploration and Production I	4								
PTRT 1370 Petroleum Geology	3								
<b>THIRD SEMESTER</b>									
PTRT 1472 Petroleum Data Management II- Drilling and Production	4								
PTRT 2372 Internship - Petroleum Technology/Technician	3								
<b>PROGRAM TOTAL</b>	<b>35</b>								

Updated:   
 \_\_ FA \_\_ VA

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**PETROLEUM ENGINEERING TECHNOLOGY - OFFSHORE DRILLING TECHNICIAN - CERTIFICATE: LEVEL I**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER 8</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
PTRT 1301 Introduction to Petroleum Industry	3								
PTAC 1308 Safety, Health, and Environment I	3								
<b>SECOND SEMESTER 10</b>									
PTRT 1403 Drilling	4								
PTRT 2331 Well Completions	3								
PTRT 1321 Oil Field Hydraulics	3								
<b>THIRD SEMESTER 3</b>									
PTRT 2372 Internship - Petroleum Technology/Technician	3								
<b>PROGRAM TOTAL</b>	<b>21</b>								

**HOUSTON COMMUNITY COLLEGE SYSTEM  
EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION**

\_\_\_ FA \_\_\_ VA

<b>NAME:</b>	<b>SID#:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>DATE:</b>
<b>COLLEGE:</b>	<b>COU/ADV:</b>	<b>TEL#:</b>	<b>EMAIL:</b>	<b>CAT YR: 8/15/14-8/14/15</b>

**PROCESS TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE**

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
					Comment/Disapproval				
TSI testing is required prior to first enrollment.									
<b>FIRST YEAR</b>									
<b>FIRST SEMESTER</b>									
LEAD 1200 Workforce Development with Critical Thinking	2								
PTAC 1302 Introduction to Process Technology	3								
ENGL 1301 Composition I	3								
MATH 1314 College Algebra	3								
PTAC 1308 Safety, Health and Environment I	3								
XXXX #3## Social/Behavioral Science/General Education									
Elective	3								
<b>SECOND SEMESTER</b>									
SCIT 1418 Applied Physics <i>OR</i>									
PHYS 1401 College Physics	4								
SCIT 1414 Applied General Chemistry I <i>OR</i>									
CHEM 1411 General Chemistry I	4								
PTAC 1410 Process Technology I - Equipment	4								
PTAC 1332 Process Instrumentation I	3								
<b>SECOND YEAR</b>									
<b>FIRST SEMESTER</b>									
SPCH 1311 Introduction to Speech Communication	3								
PTAC 2314 Principles of Quality	3								
PTAC 2420 Process Technology II - Systems	4								
PTAC 1354 Industrial Processes	3								
CPMT 1303 Introduction to Computer Technology	3								
<b>SECOND SEMESTER</b>									
PTAC 2438 Operations - PT III	4								
PTAC 1350 Industrial Economics	3								
XXXX #3## Approved Humanities/Fine Arts General Ed.									
Elective	3								
PTAC 2446 Process Troubleshooting	4								
<b>PROGRAM TOTAL</b>	<b>62</b>								



## HOUSTON COMMUNITY COLLEGE SYSTEM EDUCATIONAL PLAN/TRANSFER SUBSTITUTION PETITION

\_\_\_ FA \_\_\_ VA

NAME:	SID#:	TEL#:	EMAIL:	DATE:
COLLEGE:	COU/ADV:	TEL#:	EMAIL:	CAT YR: 8/15/14-8/14/15

### PROCESS TECHNOLOGY - PROCESS OPERATOR - CERTIFICATE: LEVEL I

HCCS Course Requirement	cr hr	Transfer Institution	Substitute Course	Substitute (SU) Transfer (TR)	Term	Credits	Grade	Approval Signature	Date
<b>FIRST SEMESTER</b>									
	<b>15</b>								
LEAD 1200 Workforce Development with Critical Thinking	2								
PTAC 1302 Introduction to Process Technology	3								
PTAC 1308 Safety, Health and Environment I	3								
PTAC 1410 Process Technology I - Equipment	4								
TECM 1301 Industrial Mathematics	3								
<b>SECOND SEMESTER</b>									
	<b>14</b>								
PTAC 1332 Process Instrumentation I	3								
PTAC 2420 Process Technology II - Systems	4								
PTAC 2314 Principles of Quality	3								
SCIT 1414 Applied General Chemistry I <b><i>OR</i></b>									
CHEM 1411 General Chemistry I	4								
<b>THIRD SEMESTER</b>									
	<b>8</b>								
PTAC 2438 Process Technology III - Operations**	4								
PTAC 2446 Process Troubleshooting	4								
<b>PROGRAM TOTAL</b>	<b>37</b>								

The \*\*capstone course is PTAC 2438 - Process Technology III - Operations.