

PALM BEACH STATE COLLEGE CURRICULUM COMMITTEE AGENDA

March 24, 2022

The Curriculum Committee meetings will be held via Microsoft Teams virtual conference. College personnel are asked to contact Julie Sivigny by Thursday at noon if they wish to attend but had not yet received an invitation.

Curriculum Development Session immediately following adjournment of curriculum agenda (time permitting).

***Appointed members (serving 2-year terms).**

Curriculum Committee Members		Area, (Years of Service), Campus	List of Presenters:	
1	Dr. Juliett Tracey – Chair	Business (4), LW		Patty Braga, Sonography
2	Trineshia Sellars – <i>Past Chair</i>	Chemistry/STEM (5)*, LW		Oleg Andric, Electrical Power Technology
3	Dr. Angela Adame-Smith	Psychology/Social Sciences (1)*, BR		Theo Owusu, BAS
4	Joseph Brownlee	Mathematics/STEM (2), BR		
5	Gilberto Castaneda	Mathematics/STEM (1), BG		
6	Dr. Carol Clarke	Nursing/Health Sciences (1), LW		
7	Dr. Sabrina Greenwell	Education (1), LW	List of Guests:	
8	Sherry Hall	Communications (1), BR		
9	Scott Hammond	Computer Science/STEM (1), LW	Standing Guests:	
10	Eligio Marquez	Automotive/Trade and Industry (4)*, LW		Julie Sivigny, Academic Services – Curriculum & Accreditation
11	Marcie Pachter	Speech/Communications (1), LW		Jen Hudson, Academic Services – Catalog
12	David Rivera	EMS/Public Safety (1), LW		Sharokina De Mirza, Academic Services - Analyst
13	Carrie Thompson	Composition/Communications (2), LW		Linda Madera, IRE, - Report
Administrative Members				Penny Mclsaac, Student Services – Advising & Career Centers
	Dr. Velmarie Albertini (Non-Voting)	Dean, Curriculum, District		Moises Pena, VA
	Teresa Armas	Financial Aid, District		Jennifer Johnson, Student Learning Centers
	Kenneth Badaracco	Campus Registrar, PBG		Susan Bierster, ERP/ Dev. Ed
	Santrel Carries	Office of the Registrar, LW		Dugues Jean-Laurent, Financial Aid
	Jyrece McClendon	Interim Dean, PBG		Roz McFarlane-McCalla, Senior Associate Registrar
	Dr. Kathleen Karran-McCoy	Student Services, LW		

*(renewed)

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FA - Possible Financial Aid Action Warranted

Changes are highlighted in **yellow**

WELCOME

I. APPROVAL OF MINUTES OF February 24, 2022

Discussion:

Data sources consulted: Minutes

Action:

II. FOR YOUR INFORMATION

A. CCE/Avocational

New Avocational and CCE Courses	Title	Clock Hours
FFO0974	Engine Operations: Beyond the Basics	32
HEO0304	Cultivating Equity Through the Preschool Library	5
HEO0305	Shifting from Problems to Solutions	5
HRO0295	Next Act! Retirement Planning for Your Next Stage of Life	8

B. VPAA/DBOT Action:

1. FLDOE mandated rule updates: AS Program revisions for compliance with General Education (HB1507) and Civic Literacy Rule (FAC 6A-10.02413): *VPAA approval pending.*

a. COURSE REVISION

<i>Change to prerequisite requirements</i> Effective: Fall 2022	DIG2430	Digital Story Development for Animation	Change Prereqs From: FL2100 with a grade of C or higher To: none	Programs Impacted: <ul style="list-style-type: none"> • Digital Animation CCC (6288) • Motion Picture Production Technology-Digital Animation Concentration AS (AS 2282D)
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b. PROGRAM REVISION - See icon link below for all program revisions.



FLDOE Gen Ed Core
& Civ Lit Update Rul

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C. Minutes Corrections: N/A

D. Other:

III. OLD BUSINESS

A. BACHELOR’S DEGREES AND CERTIFICATES (B.A.S./B.S./CCP/EPI)

1. Courses –

Presenter: Theo Owusu

Assigned Curriculum Reviewers: Trineshia Sellars, Scott Hammond

CC Representative: Scott Hammond

Justification: Many of the courses being taught in the BAS are redundant, so they are revamping the program to add more data analytics and added value so students can find jobs.

Effective: Fall 2022

FA

Cluster Approved: 10/21/2021

Business Partnership Council Approved:

Programs: T801

Action	Course Number	Title	Course Information	Prerequisites
a. NEW/ADD	CAP4744 <i>Pending SCNS approval</i>	Data Visualization	3 credit (48 lecture hour) course; BAS level; AW Grading Scale; Course Description: This course teaches students how to build visual data models for analysis using tools and techniques required to present complex data in visually meaningful representations. Topics include charts, tables, graphs, maps, infographics and dashboards. CLOs CLO #1 Describe the fundamentals of effective story-telling through data visualization. CLO #2 Using provided criteria, select an appropriate visualization design strategy. CLO #3 List and describe popular tools used to implement data visualization. CLO #4 Import data sets from external sources using tools and techniques. CLO #5 Configure data for visualization.	Prerequisite: CTS4470 with a grade of C or higher.

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			CLO #6 Prepare visual reports and create dashboards using tools and techniques.	
b.	NEW/ADD	<p>CTS4470</p> <p><i>Pending SCNS approval</i></p>	<p>Fundamentals of Data Analytics</p> <p>3 credit (48 lecture hour) course; BAS level; AW Grading Scale; Course Description: This course provides an introduction to a variety of tools and techniques used in the field of data analytics. Students will summarize data, review statistical models, explore data mining techniques, and contemplate ethical considerations associated with the field of data analytics.</p> <p>CLOs</p> <p>CLO #1 Summarize data by means of applying descriptive statistics and data visualization techniques.</p> <p>CLO #2 Analyze simulation modeling and simulation outputs.</p> <p>CLO #3 Apply statistical models to make predictions in real-world situations.</p> <p>CLO #4 Summarize ethical principles specific to data analytics.</p> <p>CLO #5 Analyze data mining activities including data preparation, data summary, and modeling.</p>	<p>Prerequisite: ISM3212 with a grade of C or higher.</p>
c.	NEW/ADD	<p>COP4283</p> <p><i>Pending SCNS approval</i></p>	<p>Data Science Programming</p> <p>3 credit (48 lecture hour) course; BAS level; AW Grading Scale; Course Description: Programming for data processing and analytics, including languages and platforms used in science such as SAS, R, Julia, and Python.</p> <p>CLOs</p> <p>CLO #1 Create clean, standardized data sets.</p> <p>CLO #2 Perform a variety of data step operations to manage data sets for analysis.</p> <p>CLO #3 Correctly use programming functions and format data values.</p> <p>CLO #4 Combine data sets.</p> <p>CLO #5 Use conditional logic.</p>	<p>Prerequisite: COP3530 Programming Languages and Concepts with a grade of C or higher.</p>

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			<p>CLO #6 Use conditional logic in SAS programs.</p> <p>CLO #7 Use programming visual analytics to design and create reports.</p>	
d.	REVISE	ISM4330	Capstone Experience: Database Administration	<p>Change prerequisite requirements. Change Prereqs from: COP4834, FIN3400, GEB3213, ISM4210, ISM4211 and ISM4213 with a grade of C or higher to FIN3400, GEB3213, ISM4211 and ISM4213 with a grade of C or higher</p>
e.	DELETE/TERMINATE	COP4834	Web Scripting	<p>3 Credit Required course in T801. Last Term offered Spring 2023. Effective date Spring 2023.</p> <p>Pre/corequisite: COP1000, CTS4425 (CTS4425 does not list COP4834 as a pre or corequisite). Listed a prereq in ISM4330.</p>
f.	DELETE/TERMINATE	ISM4117	Data Mining and Data Warehousing	<p>3 Credit Elective course in T801. Last Term offered Spring 2023. Effective date Spring 2023.</p> <p>NOTE: ISM4117 is an "OR" condition for the Bachelor's Internship (GEB4940C). Removing this course will make the Internship required.</p> <p>Pre or corequisite: COP2700, ISM3212. (ISM3212 does not list ISM4417 as a pre or corequisite)</p>
g.	DELETE/TERMINATE	ISM4210	Database Administration and Architecture	<p>3 Credit Required course in T801. Last Term offered Spring 2023. Effective date Spring 2023.</p> <p>Prerequisite: ISM3212 Listed a prereq in ISM4330.</p>

Discussion:

Data sources consulted: Curriculum Support Documents

Action:

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2. Revised Program: Information Management – Database Administration and Data Analytics BAS

Presenter: Theo Owusu

CIP Code: 111110051 (11.1005)

Total Credits: 120

Assigned Curriculum Reviewers: Trineshia Sellars, Scott Hammond

CC Representative: Scott Hammond

Effective: Fall 2022

FA

Cluster Approved: 10/21/2021

Business Partnership Council Approved:

Program Code: T801

Justification: The rationale for the rebranding is according to the United States Department of Labor, Bureau of Labor Statistics, overall employment of Data Analytics is projected to grow 26 percent from 2018 to 2028, much faster than the average for all occupations. Businesses will need these workers to analyze the increasing volume of digital and electronic data. The 2018 median pay for Data Analytics was \$40.09 per hour or \$83,390 per year. Typical level of education that most workers need to enter this occupation is a Bachelor's degree.

In Miami-Fort Lauderdale-West Palm Beach, FL: the median wages in 2020 was \$47.23 hourly and \$98,230 annually for occupations in Data Analytics. The total employment for 2019 was 33,200 employees. Employment of Data Analytics is projected to grow 8% or higher faster than any other occupation. There are 3,600 projected job openings from 2019 to 2029.

Current Program Title- Information Management – Database Administration (T801)			Proposed Program Title- Information Management – Database Administration and Data Analytics (T801)		
Course Number	Title	Credit Hours	Course Number	Title	Credit Hours
Upper Division Common Core Courses (Credits: 21)			Upper Division Common Core Courses (Credits: 21)		
BUL3130	Legal and Ethical Environment of Business (BAS)	3	BUL3130	Legal and Ethical Environment of Business (BAS)	3
COP3530	Programming Languages and Concepts (BAS)	3	COP3530	Programming Languages and Concepts (BAS)	3
GEB3213	Business Writing (BAS)	3	GEB3213	Business Writing (BAS)	3
FIN3400	Principles of Financial Management (BAS)	3	FIN3400	Principles of Financial Management (BAS)	3
ISM3113	Systems Analysis and Design (BAS)	3	ISM3113	Systems Analysis and Design (BAS)	3
ISM3212	Database Management Systems (BAS)	3	ISM3212	Database Management Systems (BAS)	3
ISM3314	Project Management (BAS)	3	ISM3314	Project Management (BAS)	3
Concentration Area Required Courses (Credits: 15)			Concentration Area Required Courses (Credits: 15)		
CTS4425	ASP.Net Web Application Development (BAS)	3	CTS4425	ASP.Net Web Application Development (BAS)	3
COP4834	Web Scripting (BAS)	3	COP4834	Web Scripting (BAS)	3
ISM4213	Advanced Database Management (BAS)	3	ISM4213	Advanced Database Management (BAS)	3
ISM4210	Database Administration and Architecture (BAS)	3	CTS4470	Fundamentals of Data Analytics (BAS)	3
ISM4211	Database Systems and Physical Design (BAS)	3	ISM4210	Database Administration and Architecture (BAS)	3

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Concentration Electives (select 3 credits) ISM4117 Data Mining and Data Warehousing (BAS) 3 GEB4940C Bachelors Internship (BAS) 3				CAP 4744 Data Visualization (BAS) 3 ISM4211 Database Systems and Physical Design (BAS) 3			
Concentration Capstone Course (Credits: 3) ISM4330 Capstone Experience: Database Administration 3				Concentration Electives (select 3 credits) ISM4117 Data Mining and Data Warehousing (BAS) 3 COP4283 Data Science Programming 3 GEB4940C Bachelors Internship (BAS) 3			
Concentration Capstone Course (Credits: 3) ISM4330 Capstone Experience: Database Administration 3							
Gen Ed: 36	Concentration: 15	Upper Div.: 21		Gen Ed: 36	Concentration: 15	Upper Div.: 21	
Capstone: 3	Elective: 3	AA/AS: 42	Total: 120	Capstone: 3	Elective: 3	AA/AS: 42	Total: 120

Discussion:

Data sources consulted: Curriculum Support Documents

Action:

B. ASSOCIATE IN SCIENCE (A.S.)

Health Sciences

2. New Courses – Diagnostic Medical Sonography AS

Presenter: Patty Braga

Assigned Curriculum Reviewers: M. Pachter; G. Castaneda

CC Representative: Carol Clarke

Effective: January 2023

Cluster Approved: 8/13/2021

Business Partnership Council Approved: 10/28/2021

Enrollment Limited to: 2313

Justification: Revising content of the Diagnostic Medical Sonography AS (2313) in response to changing industry and to meet the new CAAHEP accreditation standards effective 2024, which includes vascular sonography and additional lab time and didactic time.

	Course Number	Title	Course Information
a.	SON1172L	Vascular Sonography Lab	A.S. Course; Lab; 1 credit (2 Lab hours); Corequisites: SON1122, SON1824L, SON1175 and SON1214L with a grade of "C" or higher. Course Description: <i>An introduction to the approaches to sonographic scanning and scanning protocols in vascular sonography.</i> CLO #1: Recognize vascular anatomy and physiology as it applies to vascular imaging. CLO #2: Perform vascular exams as described in didactic course.

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		<p>CLO #3: Discuss proper methods of communication. CLO #4: Utilize appropriate imaging techniques for quality images.</p>
b.	SON1214L Practical Aspects of Sonography Lab	<p>A.S. Course; Lab; 2 credits (4 lab hours); Prerequisite: SON1000 with a grade of C or higher; Corequisites: SON1122, SON1172L, SON1175, and , SON1824L with a grade of “C” or higher. Course Description: <i>This course is a continuation of the practical aspects of scanning techniques, film critique, film identification and patient care and handling as related to sonographic examination. Stressing the operation of diagnostic ultrasound equipment and routine images obtained.</i> CLO #1: Discuss and apply appropriate technical factors related to each organ system such as gain, focus, depth. CLO #2: Identify appropriate patient position for exams and how to alter based on patient condition. CLO #3: List and apply what images should be included in each exam. CLO #4: Label the screen orientation as it relates to medical imaging. CLO #5: Discuss how to alter normal exam protocols based on pathology</p>
c.	SON2061 Seminar in Sonography	<p>A.S. Course; Lecture; 2 credit (2 lecture hours); Corequisite: SON2834L with a grade of “C” or higher. Course Description: <i>Students will participate in the various types of continuing education and/or intradisciplinary activities. This may include society meetings, seminars, conferences and in-services. A review to prepare the students for the Board Exams.</i> CLO #1: Apply critical thinking and knowledge obtained in the program to write a research paper. CLO #2: Discuss the importance of professional development and continuing education. CLO #3: Students will be able to reach across diverse disciplines to apply theories, methods and knowledge bases from many fields to a single question. CLO #4: Research and gather case studies and images to support your topic.</p>
d.	SON2834L Clinical Sonography 4	<p>A.S. Course; 3 credits (24 clinical hours); Prerequisite: SON1824L with a grade of “C” or higher; Corequisite: SON2061 with a grade of “C” or higher. Course Description: <i>Provides opportunities for students to integrate classroom learning, skills lab practice and client care incorporating three types of apprenticeships: knowledge, practice and ethical comportment in a variety of health care settings. Emphasis is placed on abdomen, ob/gyn and vascular studies.</i> CLO #1: Build on scanning principles acquired in clinical education 3. CLO #2: Demonstrate competency in performing sonographic examinations. CLO #3: Independently work with the radiologist/physician as required for various procedures.</p>

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		<p>CLO #4: Adhere to the professional code of conduct for sonographers CLO #5: Provide patient care and maintain patient comfort and modesty CLO #6: Document examinations and technical impression worksheets on exams performed.</p>
e.	SON2844L Clinical Sonography 5	<p>A.S. Course; 3 credits (24 clinical hours); Prerequisite: SON2834L with a grade of “C” or higher; Corequisite: SON1001 with a grade of “C” or higher. Course Description: <i>Application of all the material presented requiring the student to make judgmental decisions regarding technical aspects, to interact in a professional manner with those with whom he or she comes in contact, and to generally progress to the point where, after successful testing, he or she may be accepted as a competent sonographer for abdomen, ob/gyn and vascular sonographic exams in a variety of health care settings.</i> CLO #1: Demonstrate competency in performing sonographic examinations. CLO #2: Critique examinations to evaluate for anatomy and appropriate technical factors. CLO #3: Adhere to the professional code of conduct for sonographers. CLO #4: Provide patient care and maintain patient comfort and modesty. CLO #5: Determine alterations in protocols based on patient presentation and pathology. CLO #6: Build on scanning principles acquired in clinical education 4.</p>

Discussion:

Data sources consulted: Curriculum Support Documents

Action:

3. Revised Courses – Diagnostic Medical Sonography AS

Presenter: Patty Braga

Assigned Curriculum Reviewers: Sabrina Greenwell, Sherry Hall

CC Representative: Carol Clarke

Effective: January 2023

Cluster Approved: 8/13/2021

Business Partnership Council Approved: 10/28/2021

Enrollment Limited to: 2313

Justification: Updating the pre- and co-requisites of the Diagnostic Medical Sonography AS (2313) program to ensure all pre-and corequisites align with new course sequencing.

	Current Course Number	Current Title	Proposed Changes
a.	SON1000	Practical Sonography 1	Change prerequisite from SON 1100L and SON 1311 to None . Change corequisites from SON1112, SON1121 and SON1618 to SON1171, SON1814L, SON1112 and SON1121 with a grade of “C” or higher.
b.	SON1001	Practical Aspects of Sonography 2	Change corequisite from SON1175 and SON1824L to SON2844L with a grade of “C” or higher.

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c.	SON1004L	Sonographic Hospital Procedures	Change prerequisite from None to Admission to program. Change Corequisite from SON1100L to SON1100L, SON1311, SON1614, SON1111 with a grade of "C" or higher.
d.	SON1100L	Principles and Protocols of Sonography Lab	Change prerequisite from None to Admission to program. Change Corequisite from SON1111, SON1121, SON1311 and SON1614 to SON1111, SON1004L, SON1311, SON1614 with a grade of "C" or higher.
e.	SON1111	Abdominal Sonography 1	Change prerequisite from None to Admission to program. Change corequisites from None to SON1004L, SON1100L, SON1311, and SON1614 with a grade of "C" or higher.
f.	SON1112	Abdominal Sonography 2	Change prerequisites from None to SON1111 with a grade of "C" or higher. Change corequisites from SON1000, SON1121 and SON1618 to SON1000, SON1121, SON1171 and SON1814L with a grade of "C" or higher.
g.	SON1121	Sonography OB/GYN 1	Change corequisites from SON1100L, SON1111, SON1311 and SON1614 to SON1171, SON1000, SON1814L and SON1112 with a grade of "C" or higher.
h.	SON1122	Sonography OB/GYN 2	Change prerequisites from None to SON1121 with a grade of "C" or higher. Change corequisites from SON1171 and SON1814L to SON1824L, SON1172L, SON1175 and SON1214L with a grade of "C" or higher.
i.	SON1171	Vascular Sonography 1	Change prerequisite from SON1112 and SON1618 to None. Change corequisite from SON1122 and SON1814L to SON1814L, SON1000, SON1121 and SON1112 with a grade of "C" or higher.
j.	SON1175	Vascular Sonography 2	Change prerequisites from None to SON1171 with a grade of "C" or higher. Change corequisites from SON1001 and SON1824L to SON1824L, SON1122, SON1172L, and SON1214L with a grade of "C" or higher.
k.	SON1311	Sonography Cross-Sectional Anatomy	Change prerequisites from None to Admission to program. Change corequisites from None to SON1100L, SON1614, SON1004L and SON1111 with a grade of "C" or higher.
l.	SON1614	Medical Sonographic Physics 1	Change prerequisites from None to Admission to program. Change corequisites from SON1100L, SON1111, and SON1311 to SON1100L, SON1111, SON1311 and SON1004L with a grade of "C" or higher.
m.	SON1618	Medical Sonographic Physics 2	Change prerequisite from None to SON1614 with a grade of "C" or higher. Change corequisite from SON1000, SON1112 and SON1121 to SON1804L with a grade of "C" or higher.
n.	SON1804L	Clinical Sonography 1	Change Title from Clinical Education-1 to Clinical Sonography 1; Change credits from 3 credits (3 lab/3 clinical) to 2 credits (2 lab/2 clinical); Change prerequisite from SON1100L and SON1311 to None. Change corequisite from SON1112, SON1121 and SON1618 to SON1618 with a grade of "C" or higher.
o.	SON1814L	Clinical Sonography 2	Change Title from Clinical Education 2 to Clinical Sonography 2; Change credits from 3 credits (3 lab/3 clinical) to 2 credits (2 lab/2 clinical); Change prerequisite from None to SON1804L with a grade of "C" or higher. Change Corequisites from SON1122 and SON1171 to SON1171, SON1000, SON1121 and SON1112 with a grade of "C" or higher.

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p.	SON1824L	Clinical Sonography 3	Change Title from Clinical Education 3 to Clinical Sonography 3; Change credits from 4 credits (3 lab/3 clinical) to 3 credits (2 lab/2 clinical) ; Change corequisite from SON1001 to SON1122, SON1172L, SON1175 and SON1214L with a grade of "C" or higher.
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Discussion:

Data sources consulted: Curriculum Support Documents

Action:

4. Revised Program: Diagnostic Medical Sonography A.S.

Presenter: Patty Braga

CIP Code: 1351091004

Total Credits: 77 **Program Code:** 2313

Assigned Curriculum Reviewers: Angela Adame-Smith, Carol Clarke

CC Representative: Carol Clarke

Effective: January 2023

Cluster Approved: 8/18/2021

Business Partnership Council Approved: 10/28/2021

Justification: We are revising the AS to be more compressive to able to meet new CAAHEP accreditation standards which will be the standard for our next site visit in 2024/2025. This also aligns with the recent statement from the Society of Diagnostic Medical Sonography that states that all sonography certification/credentialing organizations require an associate degree as the minimum education standard to be eligible to receive a sonographer certification or credential after December 31, 2025.

Current Program Title- Diagnostic Medical Sonography A.S. (2313)			Proposed Program Title- Diagnostic Medical Sonography A.S. (2313)		
Course Number	Title	Credit Hours	Course Number	Title	Credit Hours
General Education – 23 credits			General Education – 19 credits		
BSC1010 Principles of Biology 1 (AA)	3 Credits		BSC2085 Anatomy and Physiology 1 (AA)		3 Credits
BSC1010L Principles of Biology 1 Lab (AA)	1 Credit		BSC2085L Anatomy and Physiology 1 Lab (AA)		1 Credit
BSC2085 Anatomy and Physiology 1 (AA)	3 Credits		MAC1105 College Algebra (AA)		3 Credits
BSC2085L Anatomy and Physiology 1 Lab (AA)	1 Credit		MAC1105: or higher course from Mathematics - Area III		
MAC1105 College Algebra (AA)	3 Credits		ENC1101 College Composition 1 (AA)		3 Credits
MAC1105 or higher course from Mathematics - Area III			Any course from Humanities - Tier 1		3 credits
ENC1101 College Composition 1 (AA)	3 Credits		AMH2020 US History from 1865 to Present (AA)		3 Credits
Any course from Humanities - Area II	3 credits		PHY1001 Applied Physics (AA) or equivalent		3 Credits
PSY2012 Introduction to Psychology (AA)	3 Credits				
Non-Technical Core Requirements – 7 credits			Technical Core Requirements – 58 credits		
SPC1017 Fundamentals of Speech Communication (AA)	3 Credits		HSC 2531 Medical Terminology (AA)		3 Credits
BSC2086 Anatomy and Physiology 2 (AA)	3 Credits		SON1004L Sonographic Hospital Procedures (AS)		2 Credits
			SON1311 Sonography Cross Sectional Anatomy (AS)		2 Credits

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BSC2086L Anatomy and Physiology 2 Lab (AA) 1 Credit PHY1001 Applied Physics (AA) or equivalent 3 Credits Technical Core Requirements – 47 credits SON1004L Sonographic Hospital Procedures (AS) 2 Credits SON1311 Sonography Cross Sectional Anatomy (AS) 2 Credits SON1100L Principles and Protocols of Sonography (AS) 3 Credits SON1614 Medical Sonographic Physics 1 (AS) 3 Credits SON1111 Abdominal Sonography 1 (AS) 3 Credits SON1121 Sonographic OB/Gyn 1 (AS) 3 Credits SON1000 Practical Aspects of Sonography 1 (AS) 3 Credits SON1804L Clinical Education 1 (AS) 3 Credits SON1618 Medical Sonographic Physics 2 (AS) 3 Credits SON1112 Abdominal Sonography 2 (AS) 3 Credits SON1122 Sonographic OB/Gyn 2 (AS) 3 Credits SON1814L Clinical Education 2 (AS) 3 Credits SON1171 Vascular Sonography 1 (AS) 3 Credits SON1001 Practical Aspects of Sonography 2 (AS) 3 Credits SON1175 Vascular Sonography 2 (AS) 3 Credits SON1824L Clinical Education 3 (AS) 4 Credits	SON1100L Principles and Protocols of Sonography (AS) 3 Credits SON1614 Medical Sonographic Physics 1 (AS) 3 Credits SON1111 Abdominal Sonography 1 (AS) 3 Credits SON1121 Sonographic OB/Gyn 1 (AS) 3 Credits SON1000 Practical Aspects of Sonography 1 (AS) 3 Credit SON1804L Clinical Sonography 1 (AS) 2 Credits SON1618 Medical Sonographic Physics 2 (AS) 3 Credits SON1112 Abdominal Sonography 2 (AS) 3 Credits SON1122 Sonographic OB/Gyn 2 (AS) 3 Credits SON1814L Clinical Sonography 2 (AS) 2 Credits SON1171 Vascular Sonography 1 (AS) 3 Credits SON1175 Vascular Sonography 2 (AS) 3 Credits SON1001 Practical Aspects of Sonography 2 (AS) 3 Credits SON1824L Clinical Sonography 3 (AS) 3 Credits SON2172L Vascular Lab (AS) 1 Credit SON1214L Practical Aspects of Sonography Lab (AS) 2 Credits SON2834L Clinical Sonography 4 3 Credits SON2844L Clinical Sonography 5 3 Credits SON2061 Seminar in Sonography 2 Credits
General Education Subtotal: 23 Non-Technical Core Subtotal: 7 Technical Core Subtotal: 47 Total: 77	General Education Subtotal: 19 Non-Technical Core Subtotal: 0 Technical Core Subtotal: 58 Total: 77

Discussion:

Data sources consulted: Curriculum Support Documents

Action:

Course Sequence and Pre/Corequisites

Term 1

<input checked="" type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer		Prerequisites	Corequisites
Course ID	Title		
BSC2085	Anatomy and Physiology 1		
BSC2085L	Anatomy and Physiology 1 Lab		

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MAC1105	College Algebra		
ENC1101	College Composition 1		
PHY1001	Applied Physics		

Term 2

<input type="checkbox"/> Fall	<input checked="" type="checkbox"/> Spring	<input type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON1311	Sonography Cross-sectional Anatomy		Admission to program	SON1100L, SON1614, SON1004L and SON1111
SON 1100L	Principles & Protocols of Sonography Lab		Admission to program	SON1100L, SON1614, SON1004L and SON1111
SON1614	Medical Sonographic Physics 1		Admission to program	SON1100L, SON1111, SON1311 and SON1004L
SON1004L	Sonography Hospital Procedures		Admission to Program	SON1111, SON1004L, SON1311, SON1614
SON1111	Abdominal Sonography 1		Admission to Program	SON1311, SON1614, SON1100L and SON1004L
HSC 2531	Medical Terminology			

Term 3

<input type="checkbox"/> Fall	<input type="checkbox"/> Spring	<input checked="" type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON1804L	Clinical Sonography 1		None	SON1618
SON1618	Medical Sonography Physics 2		SON1614	SON1804L

Term 4

<input checked="" type="checkbox"/> Fall	<input type="checkbox"/> Spring	<input type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON1814L	Clinical Sonography 2		SON1804L	SON1171, SON1000, SON1121 and SON1112
SON1171	Vascular Sonography 1		None	SON1814L, SON1000, SON1121 and SON1112
SON1000	Practical Sonography 1		None	SON1171, SON1814L, SON1112 and SON1121
SON1121	Sonography OB/GYN 1		None	SON1171, SON1000, SON1814L and SON1112
SON1112	Abdominal Sonography 2		SON1121	SON1824L, SON1172L, SON1175 and SON1214L

Term 5

<input type="checkbox"/> Fall	<input checked="" type="checkbox"/> Spring	<input type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON1824L	Clinical Sonography 3		None	SON1122, SON1172L, SON1175 and SON1214L
SON1122	Sonography OB/GYN 2		SON1121	SON1824L, SON1172L, SON1175 and SON1214L

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SON1175	Vascular Sonography 2	SON1171	SON1824L, SON1122, SON1172L, and SON1214L
SON1172L	Vascular Sonography Lab	None	SON1122, SON1824L, SON1175 and SON1214L
SON1214L	Practical Aspects of Sonography Lab	SON1000	SON1122, SON1172L, SON1175, and SON1824L

Term 6

<input type="checkbox"/> Fall	<input type="checkbox"/> Spring	<input checked="" type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON2834L	Clinical Sonography 4		SON1824L	SON2061.
SON2061	Seminar in Sonography		None	SON2834L
AMH2020	US History from 1865 to Present (AA)			

Term 7

<input checked="" type="checkbox"/> Fall	<input type="checkbox"/> Spring	<input type="checkbox"/> Summer	Prerequisites	Corequisites
Course ID	Title			
SON2844L	Clinical Sonography 5		SON2834L	SON1001
SON1001	Practical Aspects of Sonography 2		None	SON2844L
	Any course from Humanities Tier 1			

IV. NEW BUSINESS

A. ASSOCIATE IN SCIENCE (A.S.)

1. Revised Courses – Electrical Power Technology AS Program

Presenter: Oleg Andric

Assigned Curriculum Reviewers:

CC Representative: Eligio Marquez

Justification: Changes to Course Learning Outcome are proposed in order to ensure that the learning outcomes align with the Florida Department of Education Framework and Standards for Electrical Power Technology AS program.

Effective: Fall 2022

Cluster Approved: 1/6/2022

Business Partnership Council Approved: 12/9/2021

Enrollment Limited to:

Current Course Number	Current Title	Proposed Changes

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a.	EET1015C	DC Circuit Analysis	Prerequisite: MAC1105 (with a grade of C or higher) ; None	
			Corequisite: PHY1001 (with a grade of C or higher) ; MAC1105 or MAC1105C (with a grade of C or higher)	
			Course Learning Outcome Revisions:	
			Current CLOs	Proposed CLOs
			Define basic electronic terms.	Convert the numbers to Scientific and Engineering notations, given a list of decimal numbers.
			Describe the characteristics of and relationships between, voltage, current and resistance.	Define basic electrical terms: voltage, current, resistance, power, and energy.
			Use Ohm's law to calculate the unknown quantities, given the series circuit schematics.	Describe the characteristics of and relationships between, voltage, current and resistance.
			Use Ohm's law to calculate the unknown quantities, given the parallel circuit schematics.	Apply Ohm's law and Watt's Law to calculate the unknown quantities in a simple, series, parallel, and series-parallel circuit.
			Use Ohm's law to calculate the unknown quantities given, the series-parallel circuit schematics.	Construct, measure, analyze, troubleshoot, and verify operations of a simple, series, parallel, series-parallel, bridge, voltage divider, and current divider circuits by reading and interpreting schematics and utilizing power supplies, DMMs, breadboards, and interpreting components.
			Calculate total power dissipation, given the necessary circuit parameters.	Use Kirchhoff's laws to determine the unknown quantities, given the necessary circuit parameters.
			Use superposition to determine circuit voltage and current.	Use superposition to determine circuit voltage and current.
			Sketch the "Thevenin" equivalents, given the series-parallel circuits.	Analyze multisource circuits using Superposition theorem, Thevenin's theorem, Node Voltage, Branch current, and Loop Current analyses.
			Sketch the "Norton" equivalents, given series-parallel circuits.	Define the magnetic properties and quantities of circuits and devices.
			Use Kirchhoff's laws to determine the unknown quantity given the necessary circuit parameters.	Describe the magnetic field associated with an electric current.
Convert the numbers to Scientific and Engineering notations, given a list of decimal numbers.	Analyze basic electromagnetic circuits using magnetic circuit laws.			
Define the units of magnetic flux and flux density.				
Describe the magnetic field associated with an electric current.				

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EET1025C	AC Circuit Analysis	<p>Prerequisites: PHY1001 PHY1020 (with a grade of C or higher), EET1015C (with a grade of C or higher)</p> <p>Course Learning Outcome Revisions:</p> <table border="1"> <thead> <tr> <th data-bbox="709 289 1297 329">Current CLOs</th> <th data-bbox="1297 289 2064 329">Proposed CLOs</th> </tr> </thead> <tbody> <tr> <td data-bbox="709 329 1297 394">Define terms describing the characteristics of AC OhmTMs Law.</td> <td data-bbox="1297 329 2064 394">Define the terms associated with AC circuits.</td> </tr> <tr> <td data-bbox="709 394 1297 524">Calculate the instantaneous circuit current and voltage at specific time periods after time zero, given the schematic and RC or RL component values.</td> <td data-bbox="1297 394 2064 524">Use phasor operations to calculate the circuit current, voltage and impedance.</td> </tr> <tr> <td data-bbox="709 524 1297 589">Convert values between: peak, peak-to-peak, RMS, and average.</td> <td data-bbox="1297 524 2064 589">Determine the physical and electrical characteristics of capacitors and inductors.</td> </tr> <tr> <td data-bbox="709 589 1297 654">Define the terms associated with AC circuits.</td> <td data-bbox="1297 589 2064 654">Define RC and RL time constants and classify output of integrators and differentiators.</td> </tr> <tr> <td data-bbox="709 654 1297 719">Calculate the power factor, given the necessary circuit parameters.</td> <td data-bbox="1297 654 2064 719">Define the characteristics of AC capacitive, AC inductive, and AC resistive circuits.</td> </tr> <tr> <td data-bbox="709 719 1297 784">Use phasor operations to calculate the circuit current, voltage and impedance.</td> <td data-bbox="1297 719 2064 784">Define the characteristics of RC, RL, RLC, series and parallel resonant circuits using phasors.</td> </tr> <tr> <td data-bbox="709 784 1297 979">Sketch the Norton and Thevenin equivalent circuits, given the schematic of a series/parallel RC/RL/RLC AC circuit.</td> <td data-bbox="1297 784 2064 979">Construct, measure, analyze, troubleshoot, and verify operations of AC capacitive, AC inductive, and AC resistive, RC, RL, RLC, series and parallel resonant, differentiator and integrator circuits by reading and interpreting schematics, utilizing power supplies, function generators, DMMs, oscilloscopes, frequency counters and interpreting components.</td> </tr> <tr> <td data-bbox="709 979 1297 1076">Calculate the value of circuit components, given the schematic of a tuned circuit and the necessary information.</td> <td data-bbox="1297 979 2064 1076">Define the characteristics and principles of transformers.</td> </tr> <tr> <td data-bbox="709 1076 1297 1141"></td> <td data-bbox="1297 1076 2064 1141">Construct, measure, analyze, troubleshoot, and verify operations of AC circuits using transformers.</td> </tr> <tr> <td data-bbox="709 1141 1297 1219"></td> <td data-bbox="1297 1141 2064 1219">Analyze and measure power in AC circuits: real, reactive, and apparent power, and analyze power factor.</td> </tr> </tbody> </table>	Current CLOs	Proposed CLOs	Define terms describing the characteristics of AC Ohm TM s Law.	Define the terms associated with AC circuits.	Calculate the instantaneous circuit current and voltage at specific time periods after time zero, given the schematic and RC or RL component values.	Use phasor operations to calculate the circuit current, voltage and impedance.	Convert values between: peak, peak-to-peak, RMS, and average.	Determine the physical and electrical characteristics of capacitors and inductors.	Define the terms associated with AC circuits.	Define RC and RL time constants and classify output of integrators and differentiators.	Calculate the power factor, given the necessary circuit parameters.	Define the characteristics of AC capacitive, AC inductive, and AC resistive circuits.	Use phasor operations to calculate the circuit current, voltage and impedance.	Define the characteristics of RC, RL, RLC, series and parallel resonant circuits using phasors.	Sketch the Norton and Thevenin equivalent circuits, given the schematic of a series/parallel RC/RL/RLC AC circuit.	Construct, measure, analyze, troubleshoot, and verify operations of AC capacitive, AC inductive, and AC resistive, RC, RL, RLC, series and parallel resonant, differentiator and integrator circuits by reading and interpreting schematics, utilizing power supplies, function generators, DMMs, oscilloscopes, frequency counters and interpreting components.	Calculate the value of circuit components, given the schematic of a tuned circuit and the necessary information.	Define the characteristics and principles of transformers.		Construct, measure, analyze, troubleshoot, and verify operations of AC circuits using transformers.		Analyze and measure power in AC circuits: real, reactive, and apparent power, and analyze power factor.
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EET1215C	Intro to Electronics	<p>Course Description: This course will develop skill sets for testing, trouble-shooting, configuration/set up and analysis of electrical and electro-mechanical devices. This course introduces concepts of semiconductor materials, diodes, transistors, amplifiers, thyristor and oscillator circuits. It develops skill sets for testing, trouble-shooting, configuring, setting up, and analyzing electronic circuits.</p> <p>Course Learning Outcome Revisions:</p>																						

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		<table border="1"> <thead> <tr> <th>Current CLOs</th> <th>Proposed CLOs</th> </tr> </thead> <tbody> <tr> <td>Demonstrate the building of practical electronic circuits.</td> <td>Identify and define properties of semiconductor materials, junction diodes, bipolar junction transistors (BJTs), and field effect transistors (FETs).</td> </tr> <tr> <td>Develop skills to assist in the completion of electronic-oriented projects.</td> <td>Demonstrate the building of practical electronic circuits.</td> </tr> <tr> <td>Design electronic schematics and pictorials.</td> <td>Construct, measure, analyze, troubleshoot, and verify operations of diode, transistor, amplifier, and thyristor, and digital circuits by reading and interpreting schematics, utilizing power supplies, function generators, DMMs, oscilloscopes, frequency counters and interpreting components.</td> </tr> <tr> <td>Demonstrate use of amplifiers, oscillators and digital circuits.</td> <td>Develop skills to assist in the completion of electronic-oriented projects.</td> </tr> <tr> <td>Understand the foundation of development of a circuit board.</td> <td>Design electronic schematics and pictorials.</td> </tr> <tr> <td>Develop testing, trouble-shooting, configuration/set-up of electronic panels.</td> <td>Demonstrate use of amplifiers, oscillators and digital circuits.</td> </tr> <tr> <td></td> <td>Understand the foundation of development of a circuit board.</td> </tr> <tr> <td></td> <td>Develop testing, troubleshooting, configuration/set-up of electronic panels.</td> </tr> </tbody> </table>	Current CLOs	Proposed CLOs	Demonstrate the building of practical electronic circuits.	Identify and define properties of semiconductor materials, junction diodes, bipolar junction transistors (BJTs), and field effect transistors (FETs).	Develop skills to assist in the completion of electronic-oriented projects.	Demonstrate the building of practical electronic circuits.	Design electronic schematics and pictorials.	Construct, measure, analyze, troubleshoot, and verify operations of diode, transistor, amplifier, and thyristor, and digital circuits by reading and interpreting schematics, utilizing power supplies, function generators, DMMs, oscilloscopes, frequency counters and interpreting components.	Demonstrate use of amplifiers, oscillators and digital circuits.	Develop skills to assist in the completion of electronic-oriented projects.	Understand the foundation of development of a circuit board.	Design electronic schematics and pictorials.	Develop testing, trouble-shooting, configuration/set-up of electronic panels.	Demonstrate use of amplifiers, oscillators and digital circuits.		Understand the foundation of development of a circuit board.		Develop testing, troubleshooting, configuration/set-up of electronic panels.
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EET2930C	Special Topics in Electrical Engineering	<p>Course Learning Outcome Revisions:</p> <table border="1"> <thead> <tr> <th>Current CLOs</th> <th>Proposed CLOs</th> </tr> </thead> <tbody> <tr> <td>Demonstrate safety practices in lab environment.</td> <td>Demonstrate safety practices in lab environment.</td> </tr> <tr> <td>Demonstrate an ability to design, assemble, fabricate, modify, and interface electrical or electronic circuits for real world applications.</td> <td>Demonstrate an ability to design, assemble, fabricate, modify, and interface electrical or electronic circuits for real world applications.</td> </tr> <tr> <td>Demonstrate an ability to analyze electrical and electronic circuits.</td> <td>Demonstrate an ability to analyze electrical and electronic circuits.</td> </tr> <tr> <td>Demonstrate an ability to use computers effectively.</td> <td>Demonstrate an ability to use computers effectively.</td> </tr> <tr> <td>Demonstrate an ability to test, troubleshoot and repair electronic circuits.</td> <td>Demonstrate an ability to test, troubleshoot and repair electronic circuits and mechanical systems.</td> </tr> <tr> <td>Demonstrate an ability to work effectively in groups.</td> <td>Demonstrate an ability to work effectively in groups.</td> </tr> </tbody> </table>	Current CLOs	Proposed CLOs	Demonstrate safety practices in lab environment.	Demonstrate safety practices in lab environment.	Demonstrate an ability to design, assemble, fabricate, modify, and interface electrical or electronic circuits for real world applications.	Demonstrate an ability to design, assemble, fabricate, modify, and interface electrical or electronic circuits for real world applications.	Demonstrate an ability to analyze electrical and electronic circuits.	Demonstrate an ability to analyze electrical and electronic circuits.	Demonstrate an ability to use computers effectively.	Demonstrate an ability to use computers effectively.	Demonstrate an ability to test, troubleshoot and repair electronic circuits.	Demonstrate an ability to test, troubleshoot and repair electronic circuits and mechanical systems.	Demonstrate an ability to work effectively in groups.	Demonstrate an ability to work effectively in groups.				
Current CLOs	Proposed CLOs																			
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		Demonstrate an ability to communicate effectively.	Demonstrate an ability to communicate effectively.
		Demonstrate an ability to present effectively.	Demonstrate an ability to present effectively.
			Draw engineering electrical and mechanical drawings, charts, and graphs.
			Record data and draw curves and diagrams.
			Maintain data logs.
			Compose technical reports and write formal reports of the laboratory experiments.
ETI1000	Industrial Tools and Equipment	Course Learning Outcome Revisions:	
		Current CLOs	Proposed CLOs
		Explain procedures to replace parts and equipment.	Explain procedures to replace parts and equipment.
		Demonstrate use of manual and power-driven tools.	Demonstrate use of manual and power-driven tools.
		Calibrate measuring and testing equipment and tools.	Calibrate measuring and testing equipment and tools.
		Demonstrate the importance of maintaining tools in proper working order.	Demonstrate the importance of maintaining tools in proper working order.
		Identify attachments (bits, blades, sockets and discs) for power tools.	Identify attachments (bits, blades, sockets and discs) for power tools.
		Operate hand tools that are necessary in a Power Plant.	Operate hand tools that are necessary in a Power Plant.
		Identify safety procedures in using hand and power tools.	Operate power tools that are necessary in a Power Plant.
			Identify safety procedures in using hand and power tools.
ETP1322	Electrical Power System	Course Learning Outcome Revisions:	
		Current CLOs	Proposed CLOs
		Demonstrate an understanding of the international system of units (SI) and the ability to use them.	Demonstrate an understanding of the international system of units (SI) and the ability to use them.
		Demonstrate the ability to understand motion mechanics, work and energy laws of physics.	Demonstrate the ability to understand motion mechanics, work and energy laws of physics.

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		Define fluid flow mechanics to include mass flow rate, volumetric flow rate, density, specific volume, water hammer, laminar flow, and turbulent flow.	Define fluid flow mechanics to include mass flow rate, volumetric flow rate, density, specific volume, water hammer, laminar flow, and turbulent flow.
		Analyze the thermodynamic process and demonstrate problem solving ability using the steam tables.	Analyze the thermodynamic process.
		Explain basic electrical fundamentals to include electrical laws, electrical theories, and electrical circuits.	Explain basic electrical fundamentals to include electrical laws, electrical theories, and electrical circuits.
		Explain basic electronics fundamentals to include electronic components, their usage and applications.	Explain basic electronics fundamentals to include electronic components, their usage and applications, and of electronic communication systems.
		Demonstrate an understanding of properties of materials, including strength and stress-strain curves.	Demonstrate an understanding of properties of materials, including strength and stress-strain curves.
		Describe basic components of electric power grid.	Define the basic generator and motor theory and operation.
		Describe and explain fundamental principles of Smart Grid.	Describe basic components of electric power grid (generation, transmission, distribution, substation, and consumers), demonstrate knowledge of these components and their subcomponents, and their role in the electric power grid.
		Demonstrate an understanding of the impact of Smart Grid on electric utilities, consumers, environment and energy policy.	Describe and explain fundamental principles of Smart Grid.
			Demonstrate an understanding of the impact of Smart Grid on electric utilities, consumers, environment and energy policy.
ETP1402C	Introduction to Solar Energy	<p>Course Description: Solar energy is a rapidly growing sector of the energy market. The course is a guide to the design, installation and evaluation of residential and small commercial solar energy systems. The course covers both photovoltaics and solar thermal applications. Content includes system advantages, disadvantages, site selection, component operations installation requirements and recommended practices. The course is a guide to the design, installation and evaluation of residential and commercial solar energy systems. The course covers both photovoltaics and solar thermal applications, their components, configurations, and economics. Content includes system advantages, disadvantages, site selection, component operations installation requirements and recommended practices.</p> <p>Course Learning Outcome Revisions:</p>	

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		Current CLOs	Proposed CLOs
		Compare the advantages and disadvantages of installing Solar Energy systems.	Compare the advantages and disadvantages of installing Solar Energy systems.
		Understand some of the factors motivating the growth of PV technology worldwide.	Understand some of the factors motivating the growth of PV technology worldwide.
		Describe the design priorities for Solar Thermal and PV systems.	Describe the design priorities for Solar Thermal and PV systems.
		Differentiate between flatplate and concentrating collectors.	Differentiate between flatplate and concentrating collectors.
		Understand how different types of solar energy technologies utilize solar radiation.	Understand how different types of solar energy technologies utilize solar radiation.
		Understand how array orientations can maximize solar energy gain on modules.	Understand how array orientations can maximize solar energy gain on modules.
		Explain the different factors affecting the suns apparent path thru the sky.	Explain the different factors affecting the suns apparent path thru the sky.
		Demonstrate how solar radiation and climate data are used in sizing and estimating performance of solar systems.	Demonstrate how solar radiation and climate data are used in sizing and estimating performance of solar systems.
		Perform a solar riation site survey. Compare functions of various power conditioning devices.	Perform a solar riation site survey. Compare functions of various power conditioning devices.
		Demonstrate basic PV solar system installation procedure, both for on-grid and off-grid systems.	Demonstrate basic PV solar system installation procedure, both for on-grid and off-grid systems.
			Analyze basic PV solar systems energy production and economics.
ETP1530C	Introduction to Wind Energy	<p>Course Description: The wind energy industry is the fastest growing segment of renewable energy production in North America experiencing a 25% annual growth. This is an introductory course in surveying the advantages and disadvantages of wind power. Site surveys, wind charts, and efficiency ratings for small and large wind turbines are presented and discussed. Both stand alone and grid connected systems will be presented. This is an introductory course in surveying the advantages and disadvantages of wind power. Site surveys, wind charts, efficiency ratings and wind turbine characteristics for small and large wind turbines are presented and discussed. Both stand alone and grid connected systems will be presented. Physics of wind conversion, practical implementations of wind energy systems, components of wind energy systems, and economics are presented.</p> <p>Course Learning Outcome Revisions:</p>	
		Review the history of Wind Energy from the industrial reveloution to the present.	Review the history of Wind Energy from the industrial revolution to the present, understand the different types of machines developed

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			over time, and understand how wind energy evolved from early windmills to modern utility scale turbines.
		Understand the different types of machines developed to harness the wind.	Compute statistical analysis of a set of wind measurement data.
		Understand how wind energy evolved from early windmills to modern utility scale turbines.	Become familiar with common metrological equipment used in measuring wind characteristics at different locations.
		Explain how wind instruments measure wind.	Calculate the amount of energy in the wind and estimate annual energy production from this site based on different wind turbines and their characteristics.
		Compute average wind speeds and and explain the effects of gusts.	Identify effects of blade contamination on rotor performance.
		Become familiar with common metrological equipment used in measuring wind characteristics at different locations.	Describe measures of protecting equipment from wildlife and wildfire.
		Calculate the amount of energy in the wind.	Be aware of environmental and government restrictions in siting wind energy systems.
		Identify effects of blade contamination on rotor performance.	Understand the components of wind turbines and wind farms.
		Describe measures of protecting equipment from wild life and wildfire.	Demonstrate basic SCADA utilization to control different aspects of wind energy production, including active and reactive power control, pitch angle control, synchronization with the grid, and dynamic response of the wind turbine.
		Be aware of environmental and government restrictions in siting wind energy systems.	Understand siting, testing, commissioning, and economics of the wind energy systems.
ETS2520C	Process Measurement Fundamentals	Course Learning Outcome Revisions:	
		Demonstrate safe work practices as related to process measurement.	Demonstrate safe work practices as related to process measurement.
		Define the terms associated with measurement.	Define the terms associated with measurement and describe the principles involved in measuring processes.
		Describe the principles involved in measuring processes.	Contrast inferred and direct measurements.

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		Contrast inferred and direct measurements.	Explain the principles and physical laws used in the measurement of temperature, pressure, flow, level, strain, force, acceleration, displacement and analytical processes.
		Explain the principles and physical laws used in the measurement of temperature, pressure, flow, level, strain, force, acceleration, displacement and analytical processes.	Describe the operation of the sensors used in the measurement of process.
		Describe the operation of the sensors used in the measurement of process.	Describe component arrangement, selection, and calibration.
		Describe component arrangement, selection, and calibration.	Explain range, zero, span and linearity.
		Explain range, zero, span and linearity.	Demonstrate basic sensor measurement setup for temperature, pressure, and strain.
		Demonstrate basic sensor measurement setup for temperature, pressure, and strain.	Demonstrate sensor calibration and setup for electronic communications setup for sensor data transmission.
		Demonstrate sensor calibration and setup for electronic communications setup for sensor data transmission	Draw engineering drawing, charts, graphs; record data and draw curves and diagrams; maintain test logs; compose technical reports; write formal reports of the laboratory experiments.
ETS2700C	Fluid and Pneumatic Control	Course Learning Outcome Revisions:	
		Current CLOs	Proposed CLOs
		Demonstrate safe work practices as related to pneumatically controlled and operated final control elements and positioners.	Demonstrate safe work practices as related to pneumatically controlled and operated final control elements and positioners.
		Explain pneumatic control theory and most common elements.	Explain pneumatic control theory and most common elements.
		Explain On-Of, Proportional, PI and PID control modes using pneumatic devices.	Explain On-Of, Proportional, PI and PID control modes using pneumatic devices.
		Explain diaphragm operated final control elements.	Explain diaphragm operated final control elements.
		Explain piston operated final control elements.	Explain piston operated final control elements.
		Compare pneumatic final control elements to electrical and hydraulic final control elements.	Compare pneumatic final control elements to electrical and hydraulic final control elements.
		Demonstrate bench set in pneumatically operated control valves.	Demonstrate bench set and stroke valve setting in pneumatically operated control valves
		Demonstrate stroke valve setting in pneumatically operated control valves.	Demonstrate valve/actuator calibration in pneumatically operated control valves.

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		Demonstrate valve/actuator calibration in pneumatically operated control valves.	Explain maintenance in pneumatically operated control valves and pistons.
		Explain maintenance in pneumatically operated control valves and pistons.	Setup and test instrument loop with a final element.
			Explain pressure regulating valves and pressure safety relief valves.

Discussion:

Data sources consulted: Curriculum Support Documents **need documentation of minutes*

Action:

V. CURRICULUM COMMITTEE BUSINESS

- A. General Education Council – tbd
- B. 2022 Vice Chair Nominations
- C. 2022-2023 Committee Membership

Discussion:

Action:

VI. MOTION TO DISMISS ADMINISTRATIVE MEMBERS

Discussion: NA

Action:

Curriculum Development Session immediately following adjournment (time permitting).

2021-2022 Curriculum Actions

Actions	BAS/BS	AA	AS	ATC	ATD	CCC	PSAV	Dev. Ed	Totals
New Program	-	-		-	-			-	
New Course	(3)	-	(5)	-	-	-		-	(8)
Revised Program	(1)	-	(1)	-	-	-	-	-	(2)
Revised Course	(1)	-	10; (16)	-	-	-	-	-	10; (16)

PALM BEACH STATE COLLEGE CURRICULUM COMMITTEE AGENDA

March 24, 2022

Deleted Program	-	-		-	-	-		-	
Deleted Course	(3)	-		-	-	-		-	(3)
Other	-	-		-	-	-	-	-	
Agenda Totals	-	-	10	-	-			-	10
Cumulative Total for AY 21-22	21	15	50	0	0	2	49	0	137

(Revisit old business)