

Miami Dade College
Office of the Associate Provost of Academic Affairs

December 9, 2016

MEMORANDUM

TO: Lenore Rodicio

FROM: Julie Alexander

All curriculum items included in this report were presented and discussed at the December 6, 2016, College CASSC meeting. Approval of curriculum items is for offering at all campuses and centers, all off campus sites, at Honors level and through Distance Education.

Curriculum Requiring Approval

1. School of Education

• Add New Courses

Effective Term: Spring (2016-2)
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Michelle Thomas/Susan Neimand
Faculty: Lucia Obregon

Motion 1: The School of Education (SOE) is requesting to add four (4) new *Brain-Based Teaching* courses as part of the Teacher Recertification offerings.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
EDF4991	Brain-Based Teaching: Reading and the Brain	3
EEX4992	Brain-Based Teaching: The Exceptional Brain	3
EDF4993	Brain-Based Teaching: The Bilingual Brain	3
EDF4994	Brain-Based Teaching: Mathematics and the Brain	3

• Existing Course Modifications

Motion 2: The School of Education is requesting course modifications (description and competencies) to incorporate new state frameworks and National Association for the Education of Young Children (NAEYC) standards.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
EEC2002	Operation of an Early Childhood Facility	3
EEC2520	Early Childhood Organization Leadership and Management	3
EEC2523	Programming & Management for Early Childhood Administrators	3
EEC2527	Legal & Financial Issue in Child Care	3

-- OVER --

- **Add New Program**

Program Title: Instructional Design and Technology
Degree Type: Certificate of Professional Preparation (C.P.P.)
Program Credits: 15
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Michelle Thomas/Susan Neimand/Shanika Taylor
Faculty:

Motion 3: **The School of Education (SOE) Center for Professional Development seeks to create a 15 credit Certificate of Professional Preparation (CPP) in Instructional Design and Technology (ID).**

- **Add New Courses**

Effective Term: Spring (2016-2)
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
EME4610	Introduction to Instructional Design	3
EME4671	Instructional Design Analysis	3
EME4683	Instructional Design Application	3
EME4611	Instructional Design Development I	3
EME4612	Instructional Design Development II	3

Motion 4: **The School of Education (SOE) Center for Professional Development is proposing five (5) new courses as part of the coursework for the Certificate of Professional Preparation.**

2. School of Engineering and Technology

- **Program Modifications**

Program Title: Advanced Manufacturing (**current**)
Industrial Engineering Technology (**proposed**)
Degree Type: Associate in Science (A.S.)
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 1: **The School of Engineering + Technology (EnTec) proposes a title change to the existing AS in Advanced Manufacturing to Industrial Engineering Technology.**

- **Proposed Curriculum Changes:** General Education – No Changes
 Major Course Requirements – Reduce credits from 45 to 39
 Capstone Course – Change to Electives, Increase credits from 4 to 10.

- **Add New Courses**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Proposed Fee</u>
ETI1152C	Mechanical Measurement & Instrumentation	3	\$63.00
ETI2670	Engineering Economic Analysis	3	\$0.00
ETS2632C	Introduction to Computer Aided Manufacturing	3	\$63.00
ETS2673C	Programmable Logic Controls	4	\$63.00

- **Add Existing Courses**

<u>Course No.</u>	<u>Course Title</u>
CET1110C	Digital Circuits
CET2123C	Microprocessors
COP2270	“C” for Engineers
EET1082	Introduction to Electronics
EGN2200	Computer Applications in Engineering
ETD1340	AutoCAD
ETM1700	Air Condition Fundamentals
MAC1114	Trigonometry
MAC1140	Pre-Calculus Algebra
STA2023	Statistical Methods

- **Remove Courses (Program Only)**

<u>Course No.</u>	<u>Course Title</u>
EET1141C	Electronics 1
EET2101C	Electronics 2
MTB1322	Technical Mathematics 2

Motion 2: The School of Engineering + Technology (EnTec) proposes curriculum modifications to the existing AS in Advanced Manufacturing that includes; 1) adding a new and existing course 2) and removing of courses from the program.

- **Add New Programs**

Program Title: Engineering Technology Support Specialist
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000007
Program Credits: 18
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Program Title: Mechanics
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000013
Program Credits: 30
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Program Title: Rapid Prototyping Specialist
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000012
Program Credits: 12
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 3: **The School of Engineering + Technology (EnTec) proposes to add three (3) new College Credit Certificates to the existing AS in Advanced Manufacturing.**

Program Title: Electronics Engineering Technology
Degree Type: Bachelor's Science (B.S.)
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Course Selection Modifications

Natural Science Core

Remove: PHY 2053 – Physics without Calculus 1
PHY 2054 – Physics without Calculus 2

Add: PHY 2048 – Physics with Calculus 1
PHY 2049 – Physics with Calculus 2

Mathematics Core

Remove: MAC 2311 – Calculus and Analytical Geometry 1

Add: MAP 2302 – Differential Equations

General Education Elective Area

Remove: PHY 2053L - Physics without Calculus 1 Lab
PHY 2054L - Physics without Calculus 2 Lab

Add: PHY 2048L - Physics with Calculus 1 Lab
PHY 2049L - Physics with Calculus 2 Lab

Common Prerequisite Area

Add: MAC 2311 – Calculus and Analytical Geometry 1
(Shift from Mathematics Core)

Lower Division Technology Core

Add: ETI 2670 – Engineering Economic Analysis
ETS 2673C – Programmable Logic Controllers

Upper Division Requirements

Remove: CET 4190C – Applied Digital Signal Processing
CET 4663 – Electronic Security
ETI3671 – Technical Economic Analysis
ETP 3240 – Power Systems
ETS3543C – Programmable Logic Controllers

Upper Division Elective Area (Created)

Add: CET 4190C - Applied Digital Signal Processing
CET 4663 - Electronic Security
ETP 3320 – Introduction to Renewable Energy Technologies (New Course)
ETP 3240 - Power Systems

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 4: The School of Engineering + Technology (EnTec) is proposing curriculum modifications to the existing BS in Electronics Engineering Technology degree, to align degree more closely with industry standards.

Program Title: Electronics Engineering Technology
Degree Type: Associate in Science (A.S.)
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Course Selection Modifications

Behavioral/Social Science Core

Reduce area credits from 6 to 3

Mathematics/Natural Science Core

Reduce area credits from 7 to 3

Remove: PHY 2053 – Physics without Calculus 1
PHY 2053L – Physics without Calculus 1 Lab

Major Core Requirements

Increase area credits from 38 to 45

Add: ETI 2670 – Engineering Economic Analysis
ETS 2673C – Programmable Logic Controllers

Electives

Remove: CET 1171 – Intro to Computer Service and Maintenance
CET 1178C – A+ Computer Hardware Service
EGN 2200 – computer Applications in Engineering

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights

Faculty: James Poe

Motion 5: The School of Engineering + Technology (EnTec) proposes curriculum modifications to the existing AS in Electronics Engineering Technology degree, to align degree more closely with the FLDOE State Frameworks.

- **Add New Course**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
ETP3320	Introduction to Renewable Energy Technology	3

- **Existing Course Modifications**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
CET3126C	Advanced Microprocessors	4
CET4663C	Electronic Security	3
EET4158C (proposed)	Linear Integrated Circuits and Devices	4
EET3158C (current)		
EET4166C	Senior Design 2	2 (proposed) 3 (current)
EET4732C	Signals & Systems	4
EGN1008C	Introduction to Engineering	3
ETD1340	Computer Aided Drawing/Design	3
SUR1001C	Construction Survey	3
SUR1101C	Surveying 1	4

- **Course Reinstatement**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
EGN2200	Computer Applications in Engineering	3
EGN2322	Engineering Mechanics – Dynamics	4

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 6: The School of Engineering + Technology (EnTec) is requesting to 1) add one (1) new course, 2) modify nine (9) existing courses that includes course prerequisites, description, credits, level and 3) reinstate two (2) courses.

3. School of Health Sciences & Related Studies

- **Add New Program**

Program Title: Health Sciences
Degree Type: Associate in Science (A.S.)
Effective Term: Spring 2016-2
Affected Campus (es): Medical all off campus sites and through Distance Education.

Administrator (s): Ken Lee
Faculty: Dayne Alonso/Jaclyn Churchill

Motion 1: The School of Health Sciences & Related Studies is proposing a new 60 credit Associate in Science (AS) in Health Sciences. The proposed new AS is in response to a mandate by its accrediting body, The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) and to sunset the existing (AS) in Physician Assistant Studies.

- **Add New Courses**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>
HSA2532	Medical Documentation in Health Care	1
PAS1803	Clinical Anatomy and Physiology	2

- **Existing Course Modifications**

<u>Course No.</u>	<u>Course Title</u>
PAS1800C	Physical Diagnosis I
PAS1801C	Physical Diagnosis 2
PAS1811C	Clinical Medicine 1 for PAS
PAS1812	Behavioral & Community Medicine I
PAS1813	Pathophysiological Basis of Disease I
PAS1822L	Electrocardiography
PAS1823	Pharmacology 1
PAS1831	Clinical Diagnostic Imaging
PAS2936	Contemporary Issues for the PA

Administrator (s): Ken Lee
Faculty: Dayne Alonso and Professor Jaclyn Churchill

Motion 2: The School of Health Sciences & Related Studies is requesting to add two (2) new courses, and modify nine (9) existing courses that includes course pre/co-requisites, credits, level and type as part of the proposed new AS in Health Science degree.

- **Existing Course Modifications**

<u>Course No.</u>	<u>Course Title</u>
HSC0003	Introduction to Health Care

Motion 3: The School of Health Sciences & Related Studies is requesting to modify HSC 0003 – Introduction to Health Care course to create a standalone lecture and lab component.

- **Add New Course**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Proposed Fee</u>
HSC0003L	Introduction to Health Care Lab	0.5	\$21.00

Motion 4: The School of Health Sciences & Related Studies is requesting to add new HSC 0003L – Introduction to Health Care Lab course

Administrator (s): Ken Lee/Fabio Nascimento
Faculty: Patricia Lassiter

4. School of Business

- **Existing Course Modifications**

Effective Term: Spring (2016-2)

Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Alicia Giovinazzo/Ana Cruz/Cynthia Okoe/Tuskey

Faculty: Sandra Torres/Marie Loubeau/Rahnuma Ahsan

Course No.

MAN4941

ENT2502

Course Title

Management Internship

Starting and Growing a Social Venture

Motion 1: The School of Business is proposing course modifications for two (2) business courses that includes description and prerequisites.

Detailed Agenda

3. Approval of Minutes October 11, 2016

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

Curriculum Requiring Approval

4. School of Education

- Add New Courses

Effective Term: Spring (2016-2)
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Michelle Thomas/Susan Neimand
Faculty: Lucia Obregon

Motion 1: The School of Education (SOE) is requesting to add four (4) new *Brain-Based Teaching* courses as part of the Teacher Recertification offerings.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EDF4991	Brain-Based Teaching: Reading and the Brain	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: The student will learn how the brain processes information and acquires the ability to read. The student will apply educational neuroscience and research-based pedagogy to the instruction of P-12 content areas. (3 hr. lecture)

Curriculum Action Rationale: A three credit teacher recertification course designed to expand upon the reading component of the EEX4012 - Introduction of Brain-Based Teaching course.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EDF4993	Brain-Based Teaching: The Bilingual Brain	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: The student will learn how P-12 English Language Learners' (ELLs) brain processes information. The student will acquire research-based and best practices for teaching, differentiating instruction, and assessing ELLs. (3 hr. lecture)

Curriculum Action Rationale: A three credit teacher recertification course designed to expand upon the English Language Learner component of the EEX4012 - Introduction of Brain-Based Teaching course.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EDF4994	Brain-Based Teaching: Mathematics and the Brain	3	1, 2, 3,5,6,7, Ctr.	2016-2
Course Description: The student will learn how the brain processes information and acquires the ability to perform mathematical processes. The student will integrate educational neuroscience, cognitive research-based, instructional practices, and mathematics assessment into the P-12 classroom. (3 hr. lecture)				
Curriculum Action Rationale: A three credit teacher recertification course designed to expand upon the mathematics component of the EEX4012 - Introduction of Brain-Based Teaching course.				

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EEX4992	Brain-Based Teaching: The Exceptional Brain	3	1, 2, 3,5,6,7, Ctr.	2016-2
Course Description: The student will learn how the typical and atypical brain processes information. The student will acquire research-based and best practices for teaching, differentiating instruction, and assessing P-12 students with and without identified exceptionalities. (3 hr. lecture)				
Curriculum Action Rationale: A three credit teacher recertification course designed to expand upon the exceptional student component of the EEX4012 - Introduction of Brain-Based Teaching course.				

- **Existing Course Modifications**

Motion 2: The School of Education is requesting course modifications (description and competencies) to incorporate new state frameworks and National Association for the Education of Young Children (NAEYC) standards.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EEC2002	Operation of an Early Childhood Facility	3	1, 2, 3,5,6,7, Ctr.	2016-2
Course Description: This introductory course provides an overview for early childhood administrators to develop and enhance their leadership role in designing and implementing quality early care and education programs. The student will study the following topics: organizational leadership and management, programming, and financial and legal issues. This course meets the requirements for the Education Program Administrator Foundational Level Credential. (3 hr. lecture)				
Curriculum Action Rationale: Course was updated to include new state frameworks and National Association for the Education of Young Children (NAEYC) standards. Modifications were done to both course description and course competencies.				

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EEC2520	Early Childhood Organization Leadership and Management	3	1, 2, 3,5,6,7, Ctr.	2016-2
Course Description: This course provides an overview for early childhood administrators to learn skills and information in the following areas: organizational structure and dynamics; ethics and professionalism; leadership personnel policies and relationships; and the evaluation and retention involved in staff development. This course meets the requirements for the Florida Advanced Level Child Care and Education Administrator Credential. Prerequisite: EEC2002 (3 hr. lecture)				
Curriculum Action Rationale: Course was updated to include new state frameworks and National Association for the Education of Young Children (NAEYC) standards. Modifications were done to both course description and course competencies.				

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EEC2523	Programming & Management for Early Childhood Administrators	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course is one of the courses offered for the Advanced Level Credential in Child Care and Education Administrator Credential. The student will learn about developmentally and culturally appropriate environments, curriculum, professional standards for early childhood care managers, child observation, assessment, documentation, referrals, health and safety, nutrition practices, and alliances with the families. Prerequisite: EEC2002 (3 hr. lecture)

Curriculum Action Rationale: Course was updated to include new state frameworks and National Association for the Education of Young Children (NAEYC) standards. Modifications were done to both course description and course competencies.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EEC2527	Legal & Financial Issue in Child Care	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course is one of three courses designed to provide current early childhood administrators the opportunity of satisfying one of the educational requirements for the Florida Advanced Level Child Care and Education Administrator Credential. The student will learn skills and information in the following areas: financial planning and ongoing monitoring, budgeting and accounting, compensation and benefits, facilities and equipment, financial resource development and marketing, legal obligations, tax law, insurance and licensure, regulatory requirements and personnel law, technology and record-keeping. Prerequisite: EEC2002 (3 hr. lecture)

Curriculum Action Rationale: Course was updated to include new state frameworks and National Association for the Education of Young Children (NAEYC) standards. Modifications were done to both course description and course competencies.

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

• **Add New Program**

Program Title: Instructional Design and Technology
Degree Type: Certificate of Professional Preparation (C.P.P.)
Program Credits: 15
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Michelle Thomas/Susan Neimand/Shanika Taylor
Faculty:

Motion 3: The School of Education (SOE) Center for Professional Development seeks to create a 15 credit Certificate of Professional Preparation (CPP) in Instructional Design and Technology (ID).

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

- **Add New Courses**

Effective Term: Spring (2016-2)
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EME4610	Introduction to Instructional Design	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This is the first in a series of five courses that leads to a certificate in Instructional Design. The student will develop an overview of the field of instructional design as it relates to training, development, and education. The student will compare and contrast instructional design models, learning theories, and current technologies. (3 hr. lecture)
Curriculum Action Rationale: One of five courses in a Certificate of Professional Preparation in Instructional Design.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EME4671	Instructional Design Analysis	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: In this course, the student will evaluate and analyze training, development, and education opportunities and project development. The student will develop a needs analysis for an instructional design project based on research-based best practices in the field. Prerequisite: EME4610 (3 hr. lecture)
Curriculum Action Rationale: One of five courses in a Certificate of Professional Preparation in Instructional Design.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EME4683	Instructional Design Application	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: In this course, the student will utilize best practices of learning design, learning theories, and instructional strategies for adult learners to write objectives, develop an outline, and create storyboards that encompass the scope of a training, development, or educational opportunity. Prerequisite: EME4610 (3 hr. lecture)
Curriculum Action Rationale: One of five courses in a Certificate of Professional Preparation in Instructional Design.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EME4611	Instructional Design Development I	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: In this course, the student will develop and launch a prototype of a training, development, or educational opportunity using different types of media tools. Prerequisite: EME4683 (3 hr. lecture)
Curriculum Action Rationale: One of five courses in a Certificate of Professional Preparation in Instructional Design.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EME4612	Instructional Design Development II	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: In this course in Instructional Design, the student will develop assessments and an evaluation plan for a training, development, or educational opportunity. The student will conduct User Acceptance Testing using established criteria, and utilize feedback to modify his or her prototype. Prerequisite: EME4683 (3 hr. lecture)

Curriculum Action Rationale: One of five courses in a Certificate of Professional Preparation in Instructional Design.

Motion 4: The School of Education (SOE) Center for Professional Development is proposing five (5) new courses as part of the coursework for the Certificate of Professional Preparation.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

5. School of Engineering & Technology

- Program Modifications**

Program Title: Advanced Manufacturing (**current**)
Industrial Engineering Technology (**proposed**)

Degree Type: Associate in Science (A.S.)

Program Code: 22030

Effective Term: Spring 2016-2

Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights

Faculty: James Poe

Motion 1: The School of Engineering + Technology (EnTec) proposes a title change to the existing AS in Advanced Manufacturing to Industrial Engineering Technology.

- Proposed Curriculum Changes:** General Education – No Changes
Major Course Requirements – Reduce credits from 45 to 39
Capstone Course – Change to Electives, Increase credits from 4 to 10.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

• **Add New Courses**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETI1152C	Mechanical Measurement & Instrumentation	3	1, 2, 3,5,6,7, Ctr.	2015-2

Course Description: This course provides the basic foundation for mechanical measurement techniques used in manufacturing environments. The course will integrate the concepts, principles, and techniques of mechanical measurement with the use of various types of instruments including micrometers, verniers, calipers, gages, and other types of measuring equipment. (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: In response to industry demand in areas of advanced manufacturing, we intend to offer an Introduction to Computer Aided Manufacturing class as a lower division offering for AS students within the Industrial Engineering Technology degree.

Proposed Fee: \$63.00

Rationale/Justification: New course requires laboratory personnel.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETI2670	Engineering Economic Analysis	3	1, 2, 3,5,6,7, Ctr.	2015-2

Course Description: This course is designed for students who are majoring in any engineering discipline. Students will learn the basic methods of engineering cost analysis including equivalence, value measurement, interest relationships and decision support theory and techniques as applied to capital projects. Various problem solving methods will be used for decision making, multiple alternatives and uncertainty. Prerequisite: MAC1105 (3 hr. lecture)

Curriculum Action Rationale: This new course is a core requirement for AS in Industrial Engineering Technology and will serve as an elective for AA.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETS2632C	Introduction to Computer Aided Manufacturing	3	1, 2, 3,5,6,7, Ctr.	2015-2

Course Description: An introduction into the fundamentals of Computer Integrated Manufacturing as it relates to theory, operation, setup, safety, and practices. Students will learn the application of Computer Aided Drawing (CAD) and Computer Aided Manufacturing (CAM) software to develop prototypes. Pre/Corequisite: MAC1105 (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: In response to industry demand in areas of advanced manufacturing, we intend to offer an Introduction to Computer Aided Manufacturing class as a lower division offering for AS students within the Industrial Engineering Technology degree.

Proposed Fee: \$63.00

Rationale/Justification: New course requires laboratory personnel.

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETS2673C	Programmable Logic Controls	4	1, 2, 3,5,6,7, Ctr.	2015-2

Course Description: This course is intended for students majoring in Electronics Engineering Technology and Industrial Engineering Technology. Students will learn the principals of Programmable Logic Controls (PLC) including hardware, programming, and troubleshooting. Students will also develop advanced working programs, and troubleshoot hardware and software communication problems.
 Prerequisite: CET1110C (2 hr. lecture 4 hr. lab)

Curriculum Action Rationale: In response to industry demand in areas of advanced manufacturing, we intend to offer an Introduction to Computer Aided Manufacturing class as a lower division offering for AS students within the Industrial Engineering Technology degree.

• **Add Existing Courses**

<u>Course No.</u>	<u>Course Title</u>
CET1110C	Digital Circuits
CET2123C	Microprocessors
COP2270	“C” for Engineers
EET1082	Introduction to Electronics
EGN2200	Computer Applications in Engineering
ETD1340	AutoCAD
ETM1700	Air Condition Fundamentals
MAC1114	Trigonometry
MAC1140	Pre-Calculus Algebra
STA2023	Statistical Methods

• **Remove Courses (Program Only)**

<u>Course No.</u>	<u>Course Title</u>
EET1141C	Electronics 1
EET2101C	Electronics 2
MTB1322	Technical Mathematics 2

Motion 2: The School of Engineering + Technology (EnTec) proposes curriculum modifications to the existing AS in Advanced Manufacturing that includes; 1) adding new and existing courses and 2) removing of courses from the program.

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

- **Add New Programs**

Program Title: Engineering Technology Support Specialist
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000007
Program Credits: 18
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Program Title: Mechanics
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000013
Program Credits: 30
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Program Title: Rapid Prototyping Specialist
Degree Type: College Credit Certificate (C.C.C.)
CIP Code: 0615000012
Program Credits: 12
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 3: **The School of Engineering + Technology (EnTec) proposes to add three (3) new College Credit Certificates to the existing AS in Advanced Manufacturing.**

Program Title: Electronics Engineering Technology
Degree Type: Bachelor's Science (B.S.)
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Course Selection Modifications

Natural Science Core

Remove: PHY 2053 – Physics without Calculus 1
PHY 2054 – Physics without Calculus 2
Add: PHY 2048 – Physics with Calculus 1
PHY 2049 – Physics with Calculus 2

Mathematics Core

Remove: MAC 2311 – Calculus and Analytical Geometry 1
Add: MAP 2302 – Differential Equations

General Education Elective Area

Remove: PHY 2053L - Physics without Calculus 1 Lab
PHY 2054L - Physics without Calculus 2 Lab
Add: PHY 2048L - Physics with Calculus 1 Lab
PHY 2049L - Physics with Calculus 2 Lab

Common Prerequisite Area

Add: MAC 2311 – Calculus and Analytical Geometry 1
(Shift from Mathematics Core)

Lower Division Technology Core

Add: ETI 2670 – Engineering Economic Analysis
ETS 2673C – Programmable Logic Controllers

Upper Division Requirements

Remove: CET 4190C – Applied Digital Signal Processing
CET 4663 – Electronic Security
ETI3671 – Technical Economic Analysis
ETP 3240 – Power Systems
ETS3543C – Programmable Logic Controllers

Upper Division Elective Area (Created)

Add: CET 4190C - Applied Digital Signal Processing
CET 4663 - Electronic Security
ETP 3320 – Introduction to Renewable Energy Technologies (New Course)
ETP 3240 - Power Systems

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 4: The School of Engineering + Technology (EnTec) is proposing curriculum modifications to the existing BS in Electronics Engineering Technology degree, to align degree more closely with industry standards.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

PROPOSED MODIFICATIONS (TRACKED)

PROGRAM OF STUDY: BS - ELECTRONICS ENGINEERING TECHNOLOGY

EFFECTIVE TERM: Spring Term 2017 (2016-2)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (6.00 credits)

Gordon rule assigned

[ENC 1101](#) - English Composition 1 (3 credits)

[ENC 1102](#) - English Composition 2 (3 credits)

2. ORAL COMMUNICATION (3.00 credits)

Gordon rule assigned

[ENC 2300](#) - Advanced Composition and Communication (3 credits)

[LIT 2480](#) - Issues in Literature & Culture (3 credits)

[SPC 1017](#) - Fundamentals of Speech Communication (3 credits)

3. HUMANITIES (6.00 credits)

Gordon rule assigned

Must take 3.0 credits from the following group.

[ARC 2701](#) - History of Architecture 1 (3 credits)

[ARH 1000](#) - Art Appreciation (3 credits)

[ARH 2050](#) - Art History 1 (3 credits)

[DAN 2100](#) - Dance Appreciation (3 credits)

[HUM 1020](#) - Humanities (3 credits)

[IND 1100](#) - History of Interiors 1 (3 credits)

[MUH 2111](#) - Survey of Music History 1 (3 credits)

[MUL 1010](#) - Music Appreciation (3 credits)

[PHI 2604](#) - Critical Thinking/Ethics (3 credits)

- - - And - - -

Must take 3.0 credits from the following group.

[ARC 2702](#) - History of Architecture 2 (3 credits)

[ARH 2051](#) - Art History 2 (3 credits)

[ARH 2740](#) - Cinema Appreciation (3 credits)

[DAN 2130](#) - Dance History 1 (3 credits)

[IND 1130](#) - History of Interiors 2 (3 credits)

[LIT 2120](#) - A Survey of World Literature 2 (3 credits)

[MUH 2112](#) - Survey of Music History 2 (3 credits)

[MUL 2380](#) - Jazz and Popular Music in America (3 credits)

[PHI 2010](#) - Introduction to Philosophy (3 credits)

[THE 2000](#) - Theatre Appreciation (3 credits)

4. SOCIAL SCIENCE (6.00 credits)

Gordon rule assigned

Must take 3.0 credits from the following group.

[ANT 2410](#) - Introduction to Cultural Anthropology (3 credits)

[DEP 2000](#) - Human Growth and Development (3 credits)

[ISS 1161](#) - The Individual in Society (3 credits)

[CLP 1006](#) - Psychology of Personal Effectiveness (3 credits)

[PSY 2012](#) - Introduction to Psychology (3 credits)

[SYG 2000](#) - Introduction to Sociology (3 credits)

--- And ---

Must take 3.0 credits from the following group.

- | | |
|---|---|
| <input type="checkbox"/> AMH 2010 - History of the US to 1877 (3 credits) | <input type="checkbox"/> POS 2041 - American Federal Government (3 credits) |
| <input type="checkbox"/> AMH 2020 - History of the US since 1877 (3 credits) | <input type="checkbox"/> WOH 2012 - History of World Civilization to 1789 (3 credits) |
| <input type="checkbox"/> ECO 2013 - Principles of Economics (Macro) (3 credits) | <input type="checkbox"/> WOH 2022 - History of World Civilization from 1789 (3 credits) |
| <input type="checkbox"/> ISS 1120 - The Social Environment (3 credits) | |

5. NATURAL SCIENCE (6.00 credits)
Gordon rule assigned

- ~~[PHY 2048](#)~~ [PHY 2053 - Physics with Calculus 1 \(4 credits\)](#) ~~[Physics \(without Calculus\) 1 \(3 credits\)](#)~~
- ~~[PHY 2049](#)~~ [PHY 2054 - Physics with Calculus 2 \(4 credits\)](#) ~~[Physics \(without Calculus\) 2 \(3 credits\)](#)~~

The following course(s) are not allowed for credit in this area.
All Labs

6. MATHEMATICS (6.00 credits)
Gordon rule assigned

- [MAC 1105](#) - College Algebra (3 credits)
- ~~[MAP 2302](#)~~ [MAC 2311 - Differential Equations \(3 credits\)](#) ~~[Calculus and Analytical Geometry 1 \(5 credits\)](#)~~

The following course(s) are not allowed for credit in this area.
All Labs

7. GENERAL EDUCATION ELECTIVES (3.00 credits)

- ~~[PHY 2048L](#)~~ [PHY 2053L - Physics with Calculus 1 Lab \(1 credit\)](#) ~~[Physics \(without Calculus\) 1 Lab \(1 credits\)](#)~~
- ~~[PHY 2049L](#)~~ [MAC 2311 - Physics with Calculus 2 \(4 credits\)](#) ~~[Calculus and Analytical Geometry 1 \(5 credits\)](#)~~

8. COMPUTER COMPETENCY
Test type(s) needed:

- [CGS 1060](#) - Introduction to Microcomputer Usage (4 credits)

9. COMMON PREREQUISITES (105.00 credits)

- [MAC 2311 - Calculus and Analytical Geometry 1 \(5 credits\)](#)
- [MAC 2312](#) - Calculus and Analytical Geometry 2 (4 credits)
- ~~[PHY 2049L](#)~~ [PHY 2054L - Physics with Calculus 2 Lab \(1 credit\)](#) ~~[Physics \(without Calculus\) 2 lab \(1 credits\)](#)~~

10. LOWER DIVISION TECHNOLOGY (4538.00 credits)

- | | |
|---|--|
| <input type="checkbox"/> CET 1110C - Digital Circuits (4 credits) | <input type="checkbox"/> EET 1015C - Direct Current Circuits (4 credits) |
| <input type="checkbox"/> CET 2123C - Microprocessors (4 credits) | <input type="checkbox"/> EET 1025C - Alternating Current Circuits (4 credits) |
| <input type="checkbox"/> COP 2270 - "C" for Engineers (4 credits) | <input type="checkbox"/> ETI 2670 Engineering Economic Analysis (3 credits) |

- EET 1141C - Electronics 1 (4 credits)
- EET 2101C - Electronics 2 (4 credits)
- EET 2323C - Analog Communications (4 credits)

11. LOWER DIVISION TECHNICAL ELEC. (8.00 credits)

- CET 2113C - Advanced Digital Circuits (4 credits)
- EET 2351C - Digital and Data Communications (4 credits)

12. UPPER DIVISION REQUIREMENTS (3547.00 credits)

Must take 29.0 credits from the following group

- CET 3126C - Advanced Microprocessors (4 credits)
- ~~CET 4190C - Applied Digital Signal Processing (4 credits)~~
- ~~CET 4663 - Electronic Security (3 credits)~~
- EET 3158C - Linear Integrated Circuits and Devices (4 credits)
- EET 3716C - Advanced System Analysis (4 credits)
- EET 4165C - Senior Design 1 (3 credits)
- EET 4166C - Senior Design 2 (23 credits)

And

Must take 6.0 credits from the following group

- ~~ETP3240 - Power Systems (3 credits)~~
- ~~ETP3320 - Introduction to Renewable Energy Technologies (3 credits)~~
- ~~CET 4663C - Electronic Security (3 credits)~~
- ~~CET 4190C - Applied Digital Signal Processing (4 credits)~~

- MAC 1114 - Trigonometry (3 credits)
- MAC 1140 - Pre-Calculus Algebra (3 credits)
- ~~ETS 2673C - Programmable Logic Controls (4 credits)~~

- EET 4730C - Feedback Control Systems (4 credits)
- EET 4732C - Signals & Systems (4 credits)
- ~~ETI 3671 - Technical Economic Analysis (3 credits)~~
- ETI 4480C - Applied Robotics (4 credits)
- ~~ETP 3240 - Power Systems (3 credits)~~
- ~~ETS 3543C - Programmable Logic Controllers (4 credits)~~

* End of Program Sheet *

PROPOSED MODIFICATIONS (CLEAN)

PROGRAM OF STUDY: BS - ELECTRONICS ENGINEERING TECHNOLOGY

EFFECTIVE TERM: Spring Term 2017 (2016-2)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (6.00 credits)

Gordon rule assigned

[ENC 1101](#) - English Composition 1 (3 credits)

[ENC 1102](#) - English Composition 2 (3 credits)

2. ORAL COMMUNICATION (3.00 credits)

Gordon rule assigned

[ENC 2300](#) - Advanced Composition and Communication (3 credits)

[SPC 1017](#) - Fundamentals of Speech Communication (3 credits)

[LIT 2480](#) - Issues in Literature & Culture (3 credits)

3. HUMANITIES (6.00 credits)

Gordon rule assigned

Must take 3.0 credits from the following group.

[ARC 2701](#) - History of Architecture 1 (3 credits)

[IND 1100](#) - History of Interiors 1 (3 credits)

[ARH 1000](#) - Art Appreciation (3 credits)

[MUH 2111](#) - Survey of Music History 1 (3 credits)

[ARH 2050](#) - Art History 1 (3 credits)

[MUL 1010](#) - Music Appreciation (3 credits)

[DAN 2100](#) - Dance Appreciation (3 credits)

[PHI 2604](#) - Critical Thinking/Ethics (3 credits)

[HUM 1020](#) - Humanities (3 credits)

--- And ---

Must take 3.0 credits from the following group.

[ARC 2702](#) - History of Architecture 2 (3 credits)

[LIT 2120](#) - A Survey of World Literature 2 (3 credits)

[ARH 2051](#) - Art History 2 (3 credits)

[MUH 2112](#) - Survey of Music History 2 (3 credits)

[ARH 2740](#) - Cinema Appreciation (3 credits)

[MUL 2380](#) - Jazz and Popular Music in America (3 credits)

[DAN 2130](#) - Dance History 1 (3 credits)

[PHI 2010](#) - Introduction to Philosophy (3 credits)

[IND 1130](#) - History of Interiors 2 (3 credits)

[THE 2000](#) - Theatre Appreciation (3 credits)

4. SOCIAL SCIENCE (6.00 credits)

Gordon rule assigned

Must take 3.0 credits from the following group.

[ANT 2410](#) - Introduction to Cultural Anthropology (3 credits)

[CLP 1006](#) - Psychology of Personal Effectiveness (3 credits)

[DEP 2000](#) - Human Growth and Development (3 credits)

[PSY 2012](#) - Introduction to Psychology (3 credits)

[ISS 1161](#) - The Individual in Society (3 credits)

[SYG 2000](#) - Introduction to Sociology (3 credits)

--- And ---

Must take 3.0 credits from the following group.

- | | |
|---|---|
| <input type="checkbox"/> AMH 2010 - History of the US to 1877 (3 credits) | <input type="checkbox"/> POS 2041 - American Federal Government (3 credits) |
| <input type="checkbox"/> AMH 2020 - History of the US since 1877 (3 credits) | <input type="checkbox"/> WOH 2012 - History of World Civilization to 1789 (3 credits) |
| <input type="checkbox"/> ECO 2013 - Principles of Economics (Macro) (3 credits) | <input type="checkbox"/> WOH 2022 - History of World Civilization from 1789 (3 credits) |
| <input type="checkbox"/> ISS 1120 - The Social Environment (3 credits) | |

5. NATURAL SCIENCE (6.00 credits)

Gordon rule assigned

- [PHY 2048](#) - Physics with Calculus 1 (4 credits)
- [PHY 2049](#) - Physics with Calculus 2 (4 credits)

The following course(s) are not allowed for credit in this area.

All Labs

6. MATHEMATICS (6.00 credits)

Gordon rule assigned

- [MAC 1105](#) - College Algebra (3 credits)
- [MAP 2302](#) - Differential Equations (3 credits)

The following course(s) are not allowed for credit in this area.

All Labs

7. GENERAL EDUCATION ELECTIVES (3.00 credits)

- [PHY 2048L](#) - Physics with Calculus 1 Lab (1 credit)
- [PHY 2049](#) - Physics with Calculus 2 (4 credits)

8. COMPUTER COMPETENCY

Test type(s) needed:

- [CGS 1060](#) - Introduction to Microcomputer Usage (4 credits)

9. COMMON PREREQUISITES (10.00 credits)

- [MAC 2311](#) - Calculus and Analytical Geometry 1 (5 credits)
- [MAC 2312](#) - Calculus and Analytical Geometry 2 (4 credits)
- [PHY 2049L](#) - Physics with Calculus 2 Lab (1 credit)

10. LOWER DIVISION TECHNOLOGY (45.00 credits)

- | | |
|---|---|
| <input type="checkbox"/> CET 1110C - Digital Circuits (4 credits) | <input type="checkbox"/> ETI 2670 - Engineering Economic Analysis (3 credits) |
| <input type="checkbox"/> CET 2123C - Microprocessors (4 credits) | <input type="checkbox"/> EET 1141C - Electronics 1 (4 credits) |
| <input type="checkbox"/> COP 2270 - "C" for Engineers (4 credits) | <input type="checkbox"/> EET 2101C - Electronics 2 (4 credits) |
| <input type="checkbox"/> EET 1015C - Direct Current Circuits (4 credits) | <input type="checkbox"/> EET 2323C - Analog Communications (4 credits) |
| <input type="checkbox"/> EET 1025C - Alternating Current Circuits (4 credits) | |

[MAC 1114](#) - Trigonometry (3 credits)

[MAC 1140](#) - Pre-Calculus Algebra (3 credits)

11. LOWER DIVISION TECHNICAL ELEC. (8.00 credits)

[CET 2113C](#) - Advanced Digital Circuits (4 credits)

[EET 2351C](#) - Digital and Data Communications (4 credits)

12. UPPER DIVISION REQUIREMENTS (35.00 credits)

Must take 29.0 credits from the following group

[CET 3126C](#) - Advanced Microprocessors (4 credits)

[EET 3158C](#) - Linear Integrated Circuits and Devices (4 credits)

[EET 3716C](#) - Advanced System Analysis (4 credits)

[ETS 2673C](#) – Programmable Logic Controls (4 credits)

[EET 4165C](#) - Senior Design 1 (3 credits)

[EET 4166C](#) - Senior Design 2 (2 credits)

[EET 4730C](#) - Feedback Control Systems (4 credits)

[EET 4732C](#) - Signals & Systems (4 credits)

[ETI 4480C](#) - Applied Robotics (4 credits)

And

Must take 6.0 credits from the following group

[ETP3240](#) – Power Systems (3 credits)

[ETP3320](#) – Introduction to Renewable Energy Technologies (3 credits)

[CET 4663C](#) – Electronic Security (3 credits)

[CET 4190C](#) – Applied Digital Signal Processing (4 credits)

* End of Program Sheet *

Program Title: Electronics Engineering Technology
Degree Type: Associate in Science (A.S.)
Effective Term: Spring 2016-2
Affected Campus (es): North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.

Course Selection Modifications

Behavioral/Social Science Core

Reduce area credits from 6 to 3

Mathematics/Natural Science Core

Reduce area credits from 7 to 3

Remove: PHY 2053 – Physics without Calculus 1
 PHY 2053L – Physics without Calculus 1 Lab

Major Core Requirements

Increase area credits from 38 to 45

Add: ETI 2670 – Engineering Economic Analysis
 ETS 2673C – Programmable Logic Controllers

Electives

Remove: CET 1171 – Intro to Computer Service and Maintenance
 CET 1178C – A+ Computer Hardware Service
 EGN 2200 – computer Applications in Engineering

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 5: The School of Engineering + Technology (EnTec) proposes curriculum modifications to the existing AS in Electronics Engineering Technology degree, to align degree more closely with the FLDOE State Frameworks.

• **Add New Course**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETP3320	Introduction to Renewable Energy Technology	3	1, 2, 3,5,6,7, Ctr.	2016-2
Course Description: In this course, students will learn renewable energy theory and applications. This course focuses on solar photo-voltaics, solar power and tracking systems, charge controllers and inverters, wind power systems, biomass and geothermal power generation. In addition, this course covers the integration with electrical grid, production and end user systems. Prerequisite: EET 2101C. (3 hr. lecture)				
Curriculum Action Rationale: Based on industry feedback, the Engineering department is proposing a new course that focuses on renewable sources of energy. This course will serve as an elective in the BS-EET degree.				

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

• **Existing Course Modifications**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CET3126C	Advanced Microprocessors	4	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course is intended for upper division students majoring in Electronics Engineering Technology. This course introduces the study of advanced microprocessor design. Students will learn the basic organization of computer systems including instruction-set architecture, execution pipeline, memory hierarchy, virtual memory, and I/O subsystems. Students also learn advanced processor microarchitecture issues such as dynamic instruction scheduling, branch prediction, lock-up free caches, instruction-level parallelism, multiple instruction fetch/issuing, speculative execution, etc. to improve computer processor performance. Students will experimentally verify microarchitecture designs using industry standard microarchitecture simulators. Prerequisite: CET2123C (2 hr. lecture 4 hr. lab)

Curriculum Action Rationale: Updating Prerequisites.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CET4663C	Electronic Security	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This is an upper division course for students who are majoring in electronics engineering technologies. The student will learn information and communication security principles for computer systems and networks including authentication, protection, security models, cryptography, applications, and public policy, along with case studies. Prerequisite: CET2123C, COP2270 (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: This course has been modified based on industry feedback of the increased value in offering security curriculum to students. We are replacing one of the lecture credits with a laboratory credit so that students can gain hands on experience in security.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EET4158C	Linear Integrated Circuits and Devices (proposed)	4	1, 2, 3,5,6,7, Ctr.	2016-2
EET3158C	(current)			

Course Description: This is an upper division level course for students majoring in electronics engineering technology designed to provide students with practical skills and knowledge needed for application of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits in electronic systems. Students learn to apply these skills towards the design of amplifiers, active filters, oscillators, differentiators, integrators and other miscellaneous integrated circuit based systems. Prerequisite: EET 3716C. Laboratory fee. (2 hr. lecture; 4 hr. lab)

Curriculum Action Rationale: Level increase from 3000 to 4000 and updating prerequisite from EET2101C to EET3716C. These changes align with other State College's offering this degree.

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff.</u> <u>Term</u>
EET4166C	Senior Design 2	2	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: Senior Design 2 is a project-based experience course in which students apply all of the skills they have acquired to analyze, design, simulate, synthesize, and test a complete system. Prerequisite EET 4165C. Special fee. Department approval required. Prerequisite: EET4165C (1 hr. lecture; 2 hr. lab)

Curriculum Action Rationale: The Discipline Committee, is proposing a credit reduction from 3 credits to 2 credits, as well as removing all prerequisites except for EET 4165C - Senior Design 1.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff.</u> <u>Term</u>
EET4732C	Signals & Systems	4	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course is intended for upper division students majoring in Electronics Engineering Technology. Students will learn the theory and the mathematical techniques used in analyzing continuous-time linear systems. Students will learn continuous-time signal and systems analysis, the input-output relationships of linear time-invariant (LTI) systems, transient and steady state analysis, frequency domain analysis and Fourier analysis. Students will analyze and characterize LTI systems using Laplace transforms. Prerequisite: EET 3716C. (2 hr. lecture 4 hr. lab)

Curriculum Action Rationale: Updating the prerequisite from MAC 2312 to EET3716C.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff.</u> <u>Term</u>
EGN1008C	Introduction to Engineering	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: An introduction to the opportunities, challenges, and required skills of the engineering profession. Students will explore the different disciplines of engineering, their function in industry, and required education. Professional issues such as registration, ethics, and safety are discussed. Projects and activities are used to develop problem solving, communication and computer skills. (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: Remove the prerequisite of MAC1105 College Algebra to allow students to take the course earlier in the sequence.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff.</u> <u>Term</u>
ETD1340	Computer Aided Drawing/Design	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course is recommended for all engineering students as an introduction to the basic concepts of drafting and designing using a computer. Students will learn industry standard drafting and design practices using AutoCAD in a laboratory environment. Pre/Corequisite: MAC1105 (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: We are removing the prerequisites of MAC1147/MAC1114/EGN1008C. After discussion with the discipline committee, it was determined that student success is not contingent upon completing those courses. By reducing the prerequisite to MAC1105, will allow students more flexibility in scheduling.

VOTE: UNANIMOUS APPROVAL
 IN FAVOR 33
 OPPOSED 0
 ABSTAINED 0

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
SUR1001C	Construction Survey	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: Practice of surveying as related to the building and construction industry. Includes a combination of classroom instruction and practical field problems with the tape, level and transit. Prerequisite: MAC1114 or MAC 1147. (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: Adding prerequisites.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
SUR1101C	Surveying I	4	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: The theories and practices in surveying and the use of the principal types of surveying instruments in horizontal and vertical planes. Problems include the measurement of distance; the use of compass, sextant, transit traverse, stadia, and basic mapping. Field and laboratory practice are required. Laboratory fee. Prerequisites MAC1114 or MAC1147. (3 hr. lecture 2 hr. lab)

Curriculum Action Rationale: Remove prerequisites of EGS1111C and ETD1200. Add prerequisites MAC1114 or MAC1147.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

- **Course Reinstatement**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EGN2200	Computer Applications in Engineering	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: An introduction to fundamental concepts and skills of mathematical programming and computer-aided design. This course explores the use of computer software to solve engineering problems and bring ideas from a concept to a model. Pre/Co-requisite MAC1114 or MAC1147. (2 hr. lecture 2 hr. lab)

Curriculum Action Rationale: This course will be reactivated and competencies revamped to align more closely with the state frameworks for the class. Pre/Co-requisite of MAC1114 or MAC1147 will be added.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
EGN2322	Engineering Mechanics - Dynamics	4	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: This course provides students with the skills they need to analyze and solve problems involving bodies in motion through the application of vector mechanics and Newton's laws. Students will learn kinematics, kinetics, energy of particles, rigid bodies in 2-D and 3-D motion, and vibrations. Pre/Corequisite: MAC2313 (3 hr. lecture 2 hr. lab)

Curriculum Action Rationale: Reactivating course, for selection as elective credit in the AA. Course is a common prerequisite for transfer to appropriate baccalaureate engineering programs. Course description and competencies reviewed by discipline, no changes requested.

Administrator (s): Diana Bien-Aime/Djuradj Babic/Anselm Knights
Faculty: James Poe

Motion 6: The School of Engineering + Technology (EnTec) is requesting to 1) add one (1) new course, 2) modify nine (9) existing courses that includes course prerequisites, description, credits, level and 3) reinstate two (2) courses.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

6. School of Health Sciences & Related Studies

- **Add New Program**

Program Title: Health Sciences
Degree Type: Associate in Science (A.S.)
Program Description: The Health Sciences program provides students an introduction to the healthcare field and an in-depth science background to prepare them for a health-related career or a graduate professional health program or other graduate program.
Effective Term: Spring 2016-2
Affected Campus (es): Medical all off campus sites and through Distance Education.
Administrator (s): Ken Lee
Faculty: Dayne Alonso/Jaclyn Churchill

Motion 1: The School of Health Sciences & Related Studies is proposing a new 60 credit Associate in Science (AS) in Health Sciences. The proposed new AS is in response to a mandate by its accrediting body, The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) and to sunset the existing (AS) in Physician Assistant Studies.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0

- **Add New Courses**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
HSA2532	Medical Documentation in Health Care	1	4	2016-2

Course Description: Medical Documentation in Health Care will introduce the student to documentation in the written patient chart or electronic medical record. Through case discussions and in-class writing assignments, the student will acquire the necessary skills to document in the patient's medical record utilizing medico-legal principles and evaluation and management criteria. Patient confidentiality, billing, and coding will also be discussed. (1 hr. lecture)
Curriculum Action Rationale: New course designed to meet accreditation standards for ARC-PA.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
PAS1803	Clinical Anatomy and Physiology	2	4	2016-2

Course Description: This course is designed for students accepted into the Physician Assistant Program. The course will review basic Anatomy and Physiology principles, while integrating important clinical concepts. Students will learn to transition from Anatomy and Physiology to Pathophysiology. Prerequisite: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1046L, CHM1046, CHM1045L, MCB2010, MCB2010L (2 hr. lecture)

Curriculum Action Rationale: New course designed to meet accreditation standards for ARC-PA.

- **Existing Course Modifications**

Effective Term: Spring 2016-2

Affected Campus (es): Medical all off campus sites and through Distance Education.

PAS 1800C - Physical Diagnosis I

Credits:

From: 2 (1 hr. lecture, 2 hr. laboratory)

To: 3 (1 hr. lecture, 2 hr. clinical)

Prerequisites:

From: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM 1033, and CHM 1033L

To: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L

Curriculum Action Rationale: Course modification to credits and prerequisites.

PAS 1801C - Physical Diagnosis 2

From: 2 (1 hr. lecture, 2 hr. laboratory)

To: 3 (1 hr. lecture, 2 hr. clinical)

Prerequisites:

From: MCB 2010, MCB 2010L, PAS 1800C, PAS 1812, PAS 1813, PAS 1822C, PAS 1823, PAS 1831

To: HSC 2ZZZ, PAS1800C, PAS1831, PAS2936, PAS 1YYY

Curriculum Action Rationale: Course modification to credits and prerequisites.

PAS 1811C – Clinical Medicine 1 for PAs

Credits:

From: 5 (5 hr. lecture)

To: 5 (3 hr. lecture, 2 hr. clinical) (New Information)

Prerequisites:

From: MCB 2010, MCB 2010L, PAS 1800C, PAS 1812, PAS 1813, PAS 1822C, PAS 1823, PAS 1831

To: HSC 2ZZZ, PAS1800C, PAS1831, PAS2936, PAS 1YYY

Curriculum Action Rationale: Course modification to credit hour distribution and prerequisites.

PAS 1812 – Behavioral & Community Medicine

Prerequisites:

From: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L

To: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L

Curriculum Action Rationale: Course prerequisites modification.

PAS 1813 – Pathophysiological Basis of Disease I

Credits:

From: 2 (2 hr. lecture)

To: 2 (2 hr. clinical)

Prerequisites:

From: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L

To: HSC 2ZZZ, PAS1800C, PAS1831, PAS2936, PAS 1YYY

Curriculum Action Rationale: Course modification to credit hour distribution and prerequisites.

PAS 1822L - Electrocardiography

Title:

From: Electrocardiography/Cardiology

To: Electrocardiography

Credits:

From: 2 (1 hr. lecture, 2 hr. laboratory)

To: 1 (2 hr. laboratory) (New Information)

Prerequisites:

From: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L

To: HSC 2ZZZ, PAS1800C, PAS1831, PAS2936, PAS 1YYY

Curriculum Action Rationale: Course modification to credit hour distribution and prerequisites.

***PAS 1823 – Pathophysiological (current)
Pharmacology I (proposed)***

Credits:

From: 2 (2 hr. lecture)

To: 4 (4 hr. lecture)

Prerequisites:

From: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L

To: HSC 2ZZZ, PAS1800C, PAS1831, PAS2936, PAS 1YYY

Curriculum Action Rationale: Course modification to credit hour distribution, title change and prerequisites.

PAS 1831 – Clinical Diagnostic Imaging

Prerequisites:

From: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 1033, CHM 1033L

To: BSC2085, BSC2085L, BSC2086, BSC2086L, CHM1045, CHM1045L, CHM1046, CHM1046L, MCB2010, and MCB2010L

Curriculum Action Rationale: Course modification to prerequisites.

VOTE:	UNANIMOUS APPROVAL
IN FAVOR	33
OPPOSED	0
ABSTAINED	0

PAS 2936 - Contemporary Issues for the PA
PAS 4936 is the current No.

Level:

From: 4000

To: 2000

Credits:

From: 3 (3 hr. lecture)

To: 1 (1 hr. lecture)

Curriculum Action Rationale: Course modification to credit hour distribution. Change course numbering from a 4000 level to a 2000 level course.

Administrator (s): Ken Lee

Faculty: Dayne Alonso/Jaclyn Churchill

Motion 2: The School of Health Sciences & Related Studies is requesting to add two (2) new courses, and modify nine (9) existing courses that includes course pre/co-requisites, credits, level and type as part of the proposed new AS in Health Science.

VOTE:	UNANIMOUS APPROVAL
IN FAVOR	33
OPPOSED	0
ABSTAINED	0

- **Existing Course Modifications**

Effective Term: Spring 2016-2

Affected Campus (es): Medical all off campus sites and through Distance Education.

HSC 0003 – Introduction to Health Care

Credits:

From: 3 (3 hr. lecture, 90 Contact Hours)

To: 2.5 (2.5 hr. lecture, 75 Contact Hours)

Requisite:

Add: Corequisite: HSC 0003L

Curriculum Action Rationale: Modifying course to create a lecture course and a lab course. Reduction of hours for the lecture component and removal of fee. Creation of a lab component and transferring the existing fee to the lab component.

- **Add New Course**

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
HSC1003L	Introduction to Health Care Lab	0.5	4	2016-2

Course Description: This course focuses on the performance of basic health care skills. Students will apply body mechanics and ergonomics, standard precautions used in infection control procedures and perform and record vital signs. Corequisite: HSC0003

Curriculum Action Rationale: Modifying course to create a lecture course and a lab course. Reduction of hours for the lecture component and removal of fee. Creation of a lab component and transferring the existing fee to the lab component.

Proposed Fee: \$21.00

Rationale/Justification: Transferring the existing HSC0003 lecture fee to the proposed HSC0003 Lab component.

Administrator (s): Ken Lee/Fabio Nascimento

Faculty: Patricia Lassiter

Motion 3: The School of Health Sciences & Related Studies is requesting to modify HSC 0003 – Introduction to Health Care course to create a standalone lecture and lab component.

7. School of Business

- **Existing Course Modifications**

Effective Term:	Spring (2016-2)
Affected Campus (es):	North, Wolfson, Kendall, Homestead, InterAmerican, Hialeah, MDC-West, Centers, all off campus sites, at Honors level and through Distance Education.
Administrator (s):	Alicia Giovinazzo/Ana Cruz/Cynthia Okoe/Tuskey
Faculty:	Sandra Torres/Marie Loubeau/Rahnuma Ahsan

Motion 1: The School of Business is proposing course modifications for two (2) business courses that includes description and prerequisites.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
MAN4941	Management Internship	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: The student will learn management techniques by becoming an employee or intern (on a paid or unpaid basis) at either a not-for-profit or for-profit organization. The student will be required to work at least 144 hours required by the state to earn the credit for the internship. The student will work with their MDC Faculty and Supervising Employer to establish a set of assignments / learning goals that will be achieved during the semester. Pre/Corequisite: MAN4900

Curriculum Action Rationale: Course is being modified to allow students with full-time employment or self-employment who are unable to complete traditional internship requirements the option to complete the internship with a project.

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ENT2502	Starting and Growing a Social Venture	3	1, 2, 3,5,6,7, Ctr.	2016-2

Course Description: The course explores the start-up, growth, and management of social entrepreneurship. Social ventures share attributes but also differ from for-profits in intent and practice. The student will learn the elements of integration, innovation; development and management of a business within and existing corporate culture. Ideation, venture creation, resource acquisition, and growth management are also addressed. (3 hr. lecture)

Curriculum Action Rationale: Remove GEB 2112 as a pre-requisite for ENT 2502. GEB 2112 focuses on venture creation in general. The course competencies follow the path of creating a profitable or profit maximizing venture. Therefore, GEB 2112 content is redundant and somewhat contradictory to the content of ENT 2502. Moreover, ENT 2502 is a required course for the C.C.C. in Social Entrepreneurship; which is well aligned with the IMPACT network and Ashoka U Changemaker Campus designation. The enrollment of ENT 2502 is expected to improve after modification is made and implemented.

VOTE: UNANIMOUS APPROVAL
IN FAVOR 33
OPPOSED 0
ABSTAINED 0