

Miami Dade College
Office Vice Provost for Education

October 13, 2010

MEMORANDUM

TO: Rolando Montoya

FROM: Pamela Menke 

SUBJECT: APPROVAL OF CURRICULUM REPORT #75

Attached for your approval is the approved curriculum presented at the October 12, 2010, CASSC meeting.

The information in Curriculum Report #75 includes the following items:

1. **School of Aviation**

• **Add New Course**

TRA2010 Introduction to Transportation and Logistics

2. **Mathematics Discipline**

• **Revised Course Description/Competencies**

MAC1114 Trigonometry

3. **School of Computer & Engineering Technologies**

• **Revised Course Description/Competencies**

CGS2901 Professional Ethics & Social Issues in Computer Science

COP2823 ASP/Script Language Programming

COP2842 Developing Websites Using PHP/MYSQL

CTS2440 Introduction to Oracle: SQL and PL/SQL

CTS2441 Introduction to Oracle Database Administration

CTS2442 Intermediate Oracle Database Administration

CTS2444 Oracle Database Performance Tuning

• **Electronics Engineering Technology (AS)**

Add Existing Courses

MAC1140

MAC1114

Delete Existing Courses (from program)

EET1037 COP1334

MTB1322

• **Electrical Power Technology (26054)**

Add Existing Courses

EPT – Instrument and Control Option

EPT – Electrical Option

EPT – Mechanical Option

EPT – Nuclear Operations Option

Delete Courses

CET ETI

EET EET1141C

EST EET2101C

• **Computer Programming & Analysis – Business Application (25065)**

Add Existing Course

COP2842 Developing Websites Using PHP/MYSQL

• **Electrical Power Technology (26055, 26056, 26057)**

Move EET1051C and EET1025C from program core to major core req.

• **Add New Program**

Electrical Power Technology – Nuclear Operations

Add Existing Courses

EST1572 EET1025C

ETI1701 ETI1000

ENC1101 MTB1322

CGS1060 PHY1025

MAC1105 EET1580

EET1051C EET1581

SPC1017

PHI2604

EST2530C

ETI2315C

CLP1006

EST2520C

Add New Courses

ETG24XX

ETM2310

ETM2ZZZ

ETM2YYY

If I can be of further assistance, please do not hesitate to contact me.

Attachment

Miami Dade College
College-wide CASSC Meeting – OCTOBER 12, 2010
CURRICULUM REPORT #75

1. School of Aviation

Add New Course

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
TRA2010	Introduction to Transportation and Logistics	3	5	2010-2

Course Description: This course surveys the organization and operations of the commercial transportation industry and its impact on the bottom line of today's modern businesses. Students will learn to review regulations and processes affecting transportation and logistic functions as well as explore the industry job market and look at technologies and current issues shaping transportation and logistics. A.S. degree only. (3 hr. lecture)

APPROVE *AMonty* OPPOSE _____ MORE INFORMATION _____

ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: AVIATION ADMINISTRATION (26028)
EFFECTIVE TERM: Spring 2011 (2010-2)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATHEMATICS (3.00 credits)

- [MAC 1105](#) - College Algebra (3 credits) [MET 1010](#) - Introduction to Weather (3 credits)
-

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (37.00 credits)

- | | |
|---|--|
| <input type="checkbox"/> ASC 1210 - Aero Meteorology (3 credits) | <input type="checkbox"/> AVM 1440 - Aviation/Airport Security (3 credits) |
| <input type="checkbox"/> ASC 2320 - Aviation Laws and Regulations (3 credits) | <input type="checkbox"/> AVM 2410 - Principles of Airport Management (3 credits) |
| <input type="checkbox"/> ATF 1601L - Flight Orientation/Simulator (1 credit) | <input type="checkbox"/> AVM 2431 - Customer Service Agent (3 credits) |
| <input type="checkbox"/> ATT 1100 - Private Pilot Theory (3 credits) | <input type="checkbox"/> AVM 2441 - Aviation Safety & Human Factors (3 credits) |
| <input type="checkbox"/> ATT 2820 - Air Traffic Control (3 credits) | <input type="checkbox"/> AVM 2510 - Airline Management (3 credits) |
| <input type="checkbox"/> AVM 1010 - Aviation Industry Operation (3 credits) | <input type="checkbox"/> AVM 2515 - Airline Marketing (3 credits) |
| <input type="checkbox"/> AVM 1022 - Flight Operations (3 credits) | |
-

8. MAJOR COURSE ELECTIVE (12.00 credits)

- | | |
|--|---|
| <input type="checkbox"/> ASC 1010 - Aerospace History (3 credits) | <input type="checkbox"/> AVM 1121 - Hazardous Materials/Dangerous Goods (3 credits) |
| <input type="checkbox"/> ASC 1550 - Aerodynamics (3 credits) | <input type="checkbox"/> AVM 1520 - Airline Reservations (3 credits) |
| <input type="checkbox"/> ATF 1100 - Private Pilot Flight (3 credits) | <input type="checkbox"/> AVM 1949 - Co-op Work Experience 1: AVM (3 credits) |
| <input type="checkbox"/> ATT 2821 - ATC Radar & Non-Radar Procedures (3 credits) | <input type="checkbox"/> AVM 2120 - Air Cargo (3 credits) |

- [ATT 2822](#) - VFR Tower Operations (3 credits)
 - [ATT 2823](#) - Air Traffic Control ATC NON-Radar (3 credits)
 - [AVM 1062](#) - Aviation Career Planning (1 credit)
 - [AVM 2450](#)
 - [AVM 2949](#) - Co-op Work Experience 2: AVM (3 credits)
 - [TRA2010](#) – Introduction to Transportation & Logistics (3 credits) (NEW ELECTIVE)
-

* End of Program Sheet *

2. Mathematics Discipline

Revised Course Description

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
MAC1114	Trigonometry	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is primarily designed for students who expect to take physics and/or the courses in the calculus sequence. Students will learn and use the fundamental trigonometric identities and solve conditional trigonometric equations, perform operations on complex numbers in trigonometric form, work with vectors, and graph both polar and parametric equations. Prerequisite: MAC 1105 or MAC 1140 or MAD 2104 with a grade of "C" or better. Special fee. (3 hour lecture)

APPROVE gmonty OPPOSE _____ MORE INFORMATION _____

3. School of Computer Information Systems & Engineering Technologies

Revised Course Description/Competencies

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CGS2091	Professional Ethics & Social Issues Computer Science	4	1,2,3,5,6,7,8	2010-2

Course Description: This course is designed to provide computer science majors and others with an introduction to professional ethics & social issues in Computer Science. Students will learn theories associated with the legal, ethical, and social issues relevant to information technology, and the roles and responsibilities of computer professionals in today's technological society. Laboratory fee. (3 hr. lecture; 1 hr. lab.)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
COP2823	ASP/Script Languages Programming	4	1,2,3,5,6,7,8	2010-2

Course Description: This course will teach Microsoft Visual Basic® programmers and beginning Web developers the fundamentals of Web application development by using Microsoft ASP.NET and Microsoft Visual Basic .NET. Students will learn how to use the Microsoft Visual Studio® .NET environment and the Microsoft .NET platform to create an ASP.NET Web application that delivers dynamic content to a Web site. Prerequisites: CGS 1060, COP1332 or COP1334. Laboratory fee (3hr. lecture; 2hr lab).

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
COP2842	Developing Websites Using PHP/MYSQL	4	1,2,3,5,6,7,8	2010-2

Course Description: This is an intermediate course for students preparing to become web developers. Students will learn to develop dynamic, interactive web sites using PHP5, an open source programming language and MySQL database. A.S. degree only. (2 hr. lecture, 2 hr. lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CTS2440	Introductions to Oracle: SQL/PL/SQL	4	1,2,3,5,6,7,8	2010-2

Course Description: This is an introductory level course for students majoring in the Oracle Database Administrator and/or Solutions Developer programs. Students will learn the fundamentals of SQL and PL/SQL programming languages including the concepts of relational databases, how to create and maintain database objects, and how to store, retrieve, and manipulate data. Students will also learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports, and data management applications. Prerequisite(s):CGS1060. Laboratory fee. AS degree credit only. (3 hr. lecture, 2 hr. lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CTS2441	Introduction to Oracle: Database Administration	4	1,2,3,5,6,7,8	2010-2

Course Description: This course is designed to give students who are preparing to become Oracle database administrators (DBA) a firm foundation in basic administrative tasks. Students will learn through instructor-led learning, structured hands-on practices, and challenge-level exercise labs, the necessary knowledge and skills to set up, maintain, and troubleshoot an Oracle database. Prerequisite(s):CTS2440. Laboratory fee. AS degree credit only. (3 hr. lecture, 2 hr. lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CTS2442	Intermediate Oracle: Database Administration	4	1,2,3,5,6,7,8	2010-2

Course Description: This is the second course in Oracle database administration. Students will learn basic network administration, including techniques to backup and to recover an Oracle database. The skills developed in this class will help prepare students for the Oracle database administrator (DBA) certification exam. Prerequisite: CTS2441. Laboratory fee. A.S. degree credit only. (3 hr lec, 2 hr lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
CTS2444	Oracle Database Performance Tuning	4	1,2,3,5,6,7,8	2010-2

Course Description: This course teaches students tuning steps which can be used to improve database performance. Students will learn through a combination of demonstrations, lectures, and lab exercises, gaining practical experience tuning an Oracle database. Students will also learn how to recognize, troubleshoot and resolve common performance related problems in administering an Oracle database. Pre-requisite: CTS2442. A.S. degree credit only. Laboratory fee. (3 hr. lecture; 2 hr. lab)

APPROVE  OPPOSE _____ MORE INFORMATION _____

Electronics Engineering Technology (AS)

Program Code: 26039

Effective Term: 2010-2

Add Existing Courses

MAC1140 Pre-Calculus Algebra

MAC1114 Trigonometry

Delete Existing Courses (from program)

EET1037C Electronic Computer Simulations

MTB1322 Technical Mathematics

COP1334 Introduction to Object Oriented

APPROVE  OPPOSE _____ MORE INFORMATION _____

CURRENT PROGRAM SHEET SHOWING MODIFICATIONS

ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: **ELECTRONICS ENGINEERING TECHNOLOGY (26039)**
EFFECTIVE TERM: ~~Fall 2010 (2010-1)~~ Spring 2011 (2010-2)
Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (6.00 credits)

Must take 3.0 credits from the following group.

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

----- And -----

Must take 3.0 credits from the following group.

- | | |
|---|--|
| <input type="checkbox"/> AMH 2010 - History of the United States to 1877 (3 credits) | <input type="checkbox"/> POS 2041 - American Federal Government (3 credits) |
| <input type="checkbox"/> AMH 2020 - History of the United States since 1877 (3 credits) | <input type="checkbox"/> WOH 2012 - History of World Civilizations to 1715 (3 credits) |
| <input type="checkbox"/> ECO 2013 - Principles of Economics (Macro) (3 credits) | <input type="checkbox"/> WOH 2022 - History of World Civilizations from 1715 (3 credits) |

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

5. MATH/SCIENCE (7.00 credits)

- | | |
|--|--|
| <input type="checkbox"/> MAC 1105 - College Algebra (3 credits) | <input type="checkbox"/> PHY 2053L - Physics (without Calculus) Lab (1 credit) |
| <input type="checkbox"/> PHY 2053 - Physics (without Calculus) (3 credits) | |
-

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (38.00 credits)

Must take ~~30.0 credits~~ **34.0 credits** from the following

group. [CET 1112C](#) - Digital Circuits (4 credits)

[CET 2123C](#) - Microprocessors (4 credits)

[EET 1015C](#) - Direct Current Circuits (4 credits)

[EET 1025C](#) - Alternating Current Circuits (4 credits)

[MAC 1114](#) - Trigonometry (3 credits)
(ADD EXISTING COURSE)

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

~~[EET 1037C](#) - Electronic Computer Simulations (3 credits)~~ (REMOVE FROM PROGRAM)

[EET 1141C](#) - Electronics 1 (4 credits)

[EET 2101C](#) - Electronics 2 (4 credits)

~~[MTB 1322](#) - Technical Mathematics 2 (3 credits)~~
(REMOVE FROM PROGRAM)

----- And -----

Must take ~~4.0 credits~~ from the following group.

~~[COP 1334](#) - Introduction to Object Oriented Programming C++ (4 credits)~~
(REMOVE FROM PROGRAM)

[CGS 2423](#) - "C" For Engineers (4 credits)

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

All Labs

--- And ---

Must take 4.0 credits from the following group.

[EET 2323C](#) - Electronic Communications 1 – Analog (4 credits)

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

8. OTHER ELECTIVES (8.00 credits)

[CET 1171](#) - Introduction to Computer Service and Maintenance (3 credits)

[CET 1178C](#) - A+ Computer Hardware Service (3 credits)

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

[EET 1082](#) - Introduction to Electronics (3 credits)

[EET 2323C](#) - Electronic Communications 1 – Analog (4 credits)

[EET 2351C](#) - Electronic Communications 2 – Digital (4 credits)

PROPOSED PROGRAM SHEET SHOWING FINAL MARK-UPS

ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: ELECTRONICS ENGINEERING TECHNOLOGY (26039)
EFFECTIVE TERM: Spring 2011(2010-2)
Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (6.00 credits)

Must take 3.0 credits from the following group. [CLP 1006](#) - Psychology of Personal Effectiveness (3 credits)

----- And -----

Must take 3.0 credits from the following group.

- | | |
|---|--|
| <input type="checkbox"/> AMH 2010 - History of the United States to 1877 (3 credits) | <input type="checkbox"/> POS 2041 - American Federal Government (3 credits) |
| <input type="checkbox"/> AMH 2020 - History of the United States since 1877 (3 credits) | <input type="checkbox"/> WOH 2012 - History of World Civilizations to 1715 (3 credits) |
| <input type="checkbox"/> ECO 2013 - Principles of Economics (Macro) (3 credits) | <input type="checkbox"/> WOH 2022 - History of World Civilizations from 1715 (3 credits) |

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

5. MATH/SCIENCE (7.00 credits)

- | | |
|--|--|
| <input type="checkbox"/> MAC 1105 - College Algebra (3 credits) | <input type="checkbox"/> PHY 2053L - Physics (without Calculus) Lab (1 credit) |
| <input type="checkbox"/> PHY 2053 - Physics (without Calculus) (3 credits) | |
-

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (38.00 credits)

Must take **34.0 credits** from the following

group. [CET 1112C](#) - Digital Circuits (4 credits)

[CET 2123C](#) - Microprocessors (4 credits)

[EET 1015C](#) - Direct Current Circuits (4 credits)

[EET 1025C](#) - Alternating Current Circuits (4 credits)

[MAC 1114](#) - Trigonometry (3 credits)
(ADD EXISTING COURSE)

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

[EET 1141C](#) - Electronics 1 (4 credits)

[EET 2101C](#) - Electronics 2 (4 credits)

[CGS 2423](#) - "C" For Engineers (4 credits)

--- And ---

Must take 4.0 credits from the following group.

[EET 2323C](#) - Electronic Communications 1 – Analog (4 credits)

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

8. OTHER ELECTIVES (8.00 credits)

[CET 1171](#) - Introduction to Computer Service and Maintenance (3 credits)

[CET 1178C](#) - A+ Computer Hardware Service (3 credits)

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

[EET 1082](#) - Introduction to Electronics (3 credits)

[EET 2323C](#) - Electronic Communications 1 – Analog (4 credits)

[EET 2351C](#) - Electronic Communications 2 – Digital (4 credits)

Electrical Power Technology (26054) – Parent Degree with Options

Add Existing Courses

Instrumentation and Control Option (26055)

EET1141C	Electronics 1
EET2101C	Electronics 2
ETI2315C	Fluid/Pneumatic Instrumentation
EST2544C	Programmable Logic Controllers 2
EST2520C	Process Measurement Fundamentals
EST2530C	Process Control Technology
EST2542C	Programmable Logic Controllers 1

Electrical Option (26056)

EET1141C	Electronics 1
EET2101C	Electronics 2
ETI2515C	Motors and Generators
EST2544C	Programmable Logic Controllers 2
EST2527C	Motor Starters, Controllers, and Breakers
EST2547C	Transformers and Power Distribution
EST2542C	Programmable Logic Controllers 1

Mechanical Option (26057)

ETI1805C	Introduction to Lifting and Rigging
ETI2408C	Welding Processes
ETI2416C	Power Plant Machines & Components 1
ETI2417C	Power Plant Machines & Components 2
ETI2425C	Metallurgical Properties and Dynamics
ETI2451C	Mechanical Maintenance for Power Plants
ETM1315C	Applied Pneumatics and Hydraulics

Nuclear Operations Option (26059)

ETI2315C	Fluid/Pneumatic Instrumentation
EST2520C	Process Measurement Fundamentals
EST2530C	Process Control Technology

Add New Courses

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETG24XX	Reactor Theory for Nuclear Operations	2	1,2,3,5,6,7,8	2010-2

Course Description: This course introduces fundamental nuclear reactor theory and operations principles for students who are preparing for careers in nuclear operations. Students will learn principles related to neutron theory, reactor operational physics, nuclear control rods, and factors impacting reactor operations. Prerequisites: EET1581, PHY1025, and approval by the program chair. A.S. degree credit only. (1 hr. lecture, 2 hr. lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2310	Fluid Mechanics	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is for students preparing for nuclear power plant systems operations. Students will learn the basics of fluid theory, pump theory and operations, and how to perform calculations using the International System of Measurements (SI) and United States (US) measurement systems. Prerequisite: EET1580, MAC1105. A.S. degree credit only. (3 hr. lecture)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2XXX	Power Plant Components for Operations 1	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is designed for students who are preparing for careers in industrial and/or power plant operations. Students will learn to identify basic systems and components encountered in power plants and the principles, concepts, and applications associated with various power plant mechanical components. Prerequisite: EET1581. Laboratory fee. A.S. degree credit only. (3 hr lecture)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2XXX	Fundamentals of Reactor Energy Principles	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is for students preparing for nuclear power plant systems operations. Students will learn concepts related to energy principles and their applications in the power plant environment, including basic energy concepts, thermodynamics and thermal processes in the nuclear power plant, heat transfer, heat exchangers, and steam. Prerequisites: EET1580; PHY1025. A.S. degree credit only. (3 hr. lecture)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2XXX	Power Plant Components for Operations 2	3	1,2,3,5,6,7,8	2010-2

Course Description: A continuation of ETM2XXX Power Plant Components for Operations 1, this course is designed for students who are preparing for careers in industrial and/or power plant operations. Students will learn to develop a deeper knowledge of electro-mechanical systems in the power plant. This course will assist in preparing students for the General Fundamentals Examination (GFES). Prerequisite: ETM2XXX. Laboratory fee. A.S. degree credit only. (2 hr lecture; 2 hr lab).

Delete Courses

CET ETI
EET EET1141C*
EST EET2101C*

* EET 1141C & EET 2101C are being removed from EPT (26054) Program Core Only, and are still use in the appropriate EPT Option. Major Core Electives are being removed.

APPROVE  OPPOSE _____ MORE INFORMATION _____

CURRENT PROGRAM SHEET (with MODIFICATIONS)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY (26054)

EFFECTIVE TERM: Fall 2010 (2010-1)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

[MAC 1105](#) - College Algebra (3 credits)

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (15.00 credits ~~30 credits~~)

[EET 1580](#) - Power Plant Science (2 credits)

[EST 1572](#) - Power Plant Fundamentals (3 credits)

[ETI 1701](#) - Industrial Safety (3 credits)

[ETI 1000](#) - Industrial Plant Tools and Equipment (2 credits)

[EET 1581](#) - Power Plant Systems (2 credits)

[PHY 1025](#) - Basic Physics (3 credits)

8. PROGRAM CORE REQUIRED (19.00 credits ~~23 credits~~)
(DISPLAY OPTIONS)

[EET 1015C](#) - Direct Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.)

[EET 1025C](#) - Alternating Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.)

[EET 1141C](#) - Electronics 1 (4 credits)

[EET 2101C](#) - Electronics 2 (4 credits)

[MTB 1322](#) - Technical Mathematics 2 (3 credits)
(MOVE TO MAJOR CORE REQ.)

9. MAJOR COURSE ELECTIVE (19.00 credits)

Must take 4.0 credits from the following group.

[CGS 1060](#) - Introduction to Microcomputer Usage (4 credits)
(MOVE TO MAJOR CORE REQ.)

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

All Labs

--- And ---

Must take 15.0 credits from the following group.

[CET*](#)

[EST*](#)

[EET*](#)

[ETI*](#)

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

All Labs

PROPOSED PROGRAM SHEET (with CHANGES)
ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY (26054)
EFFECTIVE TERM: Spring 2011 (2010-2)
Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. **COMMUNICATIONS** (3.00 credits) [ENC 1101](#) - English Composition 1 (3 credits)

2. **ORAL COMMUNICATIONS** (3.00 credits)

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

3. **HUMANITIES** (3.00 credits)

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

4. **BEHAVIORAL/SOCIAL SCIENCE** (3.00 credits)

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

5. **MATH/SCIENCE** (3.00 credits)

[MAC 1105](#) - College Algebra (3 credits)

6. **COMPUTER COMPETENCY**

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

7. **MAJOR COURSE REQUIREMENTS (30 credits)**

[CGS 1060](#) - Introduction to Microcomputer Usage (4 credits) [ETI 1000](#) - Industrial Plant Tools and Equipment (1 credits)

[EET 1015C](#) - Direct Current Circuits (4 credits) [EET 1581](#) - Power Plant Systems (2 credits)

[EET 1025C](#) - Alternating Current Circuits (4 credits) [MTB 1322](#) - Technical Mathematics 2 (3 credits)

[EET 1580](#) - Power Plant Science (3 credits) [PHY 1025](#) - Basic Physics (3 credits)

[EST 1572](#) - Power Plant Fundamentals (3 credits)

[ETI 1701](#) - Industrial Safety (3 credits)

8. **PROGRAM CORE REQUIRED (23 credits)**

(SELECT ONE OPTION ONLY)

Instrumentation & Control Option (26055)

[EET 1141C](#) - Electronics 1 (4 credits)
Pre/Co: MAC1105, EET1025C

[EET 2101C](#) - Electronics 2 (4 credits)
Pre: EET1141

[ETI 2315C](#) - Fluid/Pneumatic Instrumentation (3 credits)
Pre: MAC1105

[EST 2544C](#) - Programmable Logic Controllers 2 (3 credits)

[EST 2520C](#) - Process Measurement Fundamentals (3 credits)
Pre: EET1025C

[EST 2530C](#) - Process Control Technology (3 credits)
Pre: EET1025

[EST 2542C](#) - Programmable Logic Controllers 1 (3 credits)
Pre/Co: EET1141C

Pre: EST2542C

OR

Electrical Option (26056) [EET 1141C](#)

- Electronics 1 (4 credits)

Pre/Co: MAC1105, EET1025C

[EET 2101C](#) - Electronics 2 (4 credits)

Pre: EET1141C

[EET 2515C](#) - Motors and Generators
(3 credits)

Pre: EET1025C; Co: EET1141C

[EET 2527C](#) - Motor Starters, Controllers, and Breakers
(3 credits)

Pre: EET1141C, 2515C

[EET 2547C](#) - Transformers and Power Distribution (3 credits)

Pre: EET2515C; Co: EET2527C

[EST 2542C](#) - Programmable Logic Controllers 1 (3 credits)

Pre/Co: EET1141C

[EST 2544C](#) - Programmable Logic Controllers 2 (3 credits)

Pre: EST2542C

OR

Mechanical Option (26057) [ETI 1805C](#) -

Introduction to Lifting and Rigging

(3 credits)

Pre: EET1581, ETI1701

[ETI 2408C](#) - Welding Processes (3 credits)

Pre: ETI2425C

[ETI 2416C](#) - Power Plant Machines &
Components 1 (4 credits)

Pre: EET1581

[ETI 2417C](#) - Power Plant Machines and
Components 2 (4 credits)

Pre: ETI2416C

[ETI 2425C](#) - Metallurgical Properties and
Dynamics (3 credits)

Pre: PHY1025

[ETI 2451C](#) - Mechanical Maintenance for Power
Plants (3 credits)

Pre: ETI2416C

[ETM 1315C](#) - Applied Pneumatics and Hydraulics
(3 credits)

Pre/Co: MAC1105

OR

Nuclear Operations Option (26059) [ETI 2315C](#)

Fluid/Pneumatic Instrumentation (3 cr)

Pre: MAC1105

EST 2520C Process Measurement Fundamentals
(3 cr)

Pre: EET1025C

EST 2530C Process Control Technology (3 cr)

Pre: EET1025C

[ETG 24XX Reactor Theory for Nuclear Operations](#)
(2 cr) **(NEW)**

Pre: EET1581, PHY1025

[ETM 2310 Fluid Mechanics \(3 cr\) \(NEW\)](#)

Pre: EET1580, MAC1105

[ETM 2XXX Power Plant Components for
Operations 1 \(3 cr\) \(NEW\)](#)

Pre: EET1581

[ETM 2ZZZ Fundamentals of Reactor Energy
Principles \(3 cr\) \(NEW\)](#)

Pre: EET1580, PHY1025

[ETM 2YYY Power Plant Components for
Operations 2 \(3 cr\) \(NEW\)](#)

Pre: ETM2XXX

Computer Programming & Analysis – Business Application (25065)

Add Existing Course

COP2842 Developing Websites Using PHP/MYSQL

APPROVE gmy OPPOSE _____ MORE INFORMATION _____

ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: **COMPUTER PROGRAMMING AND ANALYSIS-BUS
APPLICATION PROGRAM (25065)**

EFFECTIVE TERM: **SPRING 2010 (2010-2)**

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

[MAC 1105](#) - College Algebra (3 credits)

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (32.00 credits)

[ACG 2021](#) - Financial Accounting (3 credits)

[ACG 2021L](#) - Financial Accounting Lab (1 credit)

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

[CGS 1541](#) - Database Applications (4 credits)

[CIS 1321](#) - Introduction to Systems Analysis and Design (4 credits)

8. PROGRAM ELECTIVE (16.00 credits)

Must take 8.0 credits from the following

group. [COP 2333](#) - Advanced Programming Concepts using Visual Basic (4 credits)

[COP 2335](#) - Advanced Object Oriented Programming using C++ (4 credits)

;

Must take 8.0 credits from the following

group. [CGS 2091](#) - Professional Ethics and Social (4 credits)

[CIS 2322](#) - Systems Analysis Design and Implementation (4 credits)

[COP 1332](#) - Introduction to Visual Basic Programming (4 credits)

[COP 1334](#) - Introduction to Object Oriented Programming C++ (4 credits)

[COP 2800](#) - Java Programming (4 credits)

[COP 2805](#) - Advanced Java Programming (4 credits)

--- And ---

[COP 2823](#) - ASP/Script Language Programming

Issues in CS (4 credits)

[CGS 2547](#) - Microsoft SQL Implementation (4 credits)

[COP 2700](#) - Database Application Programming (5 credits)

[COP 2842](#) – Developing Websites using PHP/MYSL (4 credits) (**ADD Elective**)

[CTS 2463](#) - C# Web Application Development (4 credits)

* End of Program Sheet *

Electrical Power Technology (26055, 26056, 26057)

Move EET1051C and EET1025C from program core to major core req.

APPROVE  OPPOSE _____ MORE INFORMATION _____

CURRENT PROGRAM SHEET (with MODIFICATION)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: **ELECTRICAL POWER TECHNOLOGY-INSTRUMENTATION & CONTROL OPTION**
(26055)

EFFECTIVE TERM: **Fall 2010 (2010-1)**

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

[MAC 1105](#) - College Algebra (3 credits)

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (~~22.00 credits~~ 30 credits)

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

[EET 1580](#) - Power Plant Science (2 credits)

[EST 1572](#) - Power Plant Fundamentals (3 credits)

[ETI 1701](#) - Industrial Safety (3 credits)

[ETI 1000](#) - Industrial Plant Tools and Equipment (2 credits)

[EET 1581](#) - Power Plant Systems (2 credits)

[MTB 1322](#) - Technical Mathematics 2 (3 credits)

[PHY 1025](#) - Basic Physics (3 credits)

8. PROGRAM CORE REQUIRED (~~31.00 credits~~ 23 credits)

[EET 1015C](#) - Direct Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.)

[EET 1025C](#) - Alternating Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.)

[EET 1141C](#) - Electronics 1 (4 credits)

[EET 2101C](#) - Electronics 2 (4 credits)

[ETI 2315C](#) - Fluid/Pneumatic Instrumentation (3 credits)

[EST 2520C](#)

[EST 2530C](#)

[EST 2542C](#) - Programmable Logic Controllers 1 (3 credits)

[EST 2544C](#)

PROPOSED PROGRAM SHEET (with MODIFICATION)

ASSOCIATE IN SCIENCE DEGREE

**PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-INSTRUMENTATION & CONTROL
OPTION (26055)**

EFFECTIVE TERM: Spring 2011 (2010-2)

Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

- [MAC 1105](#) - College Algebra (3 credits)
-

6. COMPUTER COMPETENCY

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

7. MAJOR COURSE REQUIREMENTS (30.00 credits)

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

- [EET 1015C](#) - Direct Current Circuits (4 credits)

- [EET 1025C](#) - Alternating Current Circuits (4 credits)

- [EET 1580](#) - Power Plant Science (3 credits)

- [EST 1572](#) - Power Plant Fundamentals (3 credits)

- [ETI 1701](#) - Industrial Safety (3 credits)
-

- [ETI 1000](#) - Industrial Plant Tools and Equipment (1 credits)

- [EET 1581](#) - Power Plant Systems (2 credits)

- [MTB 1322](#) - Technical Mathematics 2 (3 credits)

- [PHY 1025](#) - Basic Physics (3 credits)
-

8. PROGRAM CORE REQUIRED (23.00 credits)

- [EET 1141C](#) - Electronics 1 (4 credits)
Pre/Co: MAC1105, EET1025C

- [EET 2101C](#) - Electronics 2 (4 credits)
Pre: EET1141C

- [ETI 2315C](#) - Fluid/Pneumatic Instrumentation (3 credits)
Pre: MAC1105

- [EST 2544C](#) - Programmable Logic Controllers 2 (3 credits)
Pre: EST2542C

- [EST 2520C](#) - Process Measurement Fundamentals (3 credits)
Pre: EET1025C

- [EST 2530C](#) - Process Control Technology (3 credits)
Pre: EET1025

- [EST 2542C](#) - Programmable Logic Controllers 1 (3 credits)
Pre/Co: EET1141C

CURRENT PROGRAM SHEET (with MODIFICATIONS)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-ELECTRICAL OPTION (26056)

EFFECTIVE TERM: Fall 2010 (2010-1)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

- [MAC 1105](#) - College Algebra (3 credits)
-

6. COMPUTER COMPETENCY

Test type(s) needed:

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

**7. MAJOR COURSE REQUIREMENTS (~~22.00~~
credits **30 credits**)**

- | | |
|---|--|
| <input type="checkbox"/> CGS 1060 - Introduction to Microcomputer Usage (4 credits) | <input type="checkbox"/> ETI 1000 - Industrial Plant Tools and Equipment (2 credits) |
| <input type="checkbox"/> EET 1580 - Power Plant Science (2 credits) | <input type="checkbox"/> EET 1581 - Power Plant Systems (2 credits) |
| <input type="checkbox"/> EST 1572 - Power Plant Fundamentals (3 credits) | <input type="checkbox"/> MTB 1322 - Technical Mathematics 2 (3 credits) |
| <input type="checkbox"/> ETI 1701 - Industrial Safety (3 credits) | <input type="checkbox"/> PHY 1025 - Basic Physics (3 credits) |
-

8. PROGRAM CORE REQUIRED (~~31.00~~ credits **23 credits)**

- | | |
|--|---|
| <input type="checkbox"/> EET 1015C - Direct Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.) | <input type="checkbox"/> EET 2527C |
| <input type="checkbox"/> EET 1025C - Alternating Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.) | <input type="checkbox"/> EET 2547C |
| <input type="checkbox"/> EET 1141C - Electronics 1 (4 credits) | <input type="checkbox"/> EST 2542C - Programmable Logic Controllers 1 (3 credits) |
| <input type="checkbox"/> EET 2101C - Electronics 2 (4 credits) | <input type="checkbox"/> EST 2544C |
| <input type="checkbox"/> EET 2515C | |
-

* End of Program Sheet *

PROPOSED PROGRAM SHEET (with CHANGES)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-ELECTRICAL OPTION (26056)

EFFECTIVE TERM: Spring 2011 (2010-2)

Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

- [MAC 1105](#) - College Algebra (3 credits)
-

6. COMPUTER COMPETENCY

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

7. MAJOR COURSE REQUIREMENTS (30.00 credits)

- | | |
|---|--|
| <input type="checkbox"/> CGS 1060 - Introduction to Microcomputer Usage (4 credits) | <input type="checkbox"/> ETI 1000 - Industrial Plant Tools and Equipment (1 credits) |
| <input type="checkbox"/> EET 1015C - Direct Current Circuits (4 credits) | <input type="checkbox"/> EET 1581 - Power Plant Systems (2 credits) |
| <input type="checkbox"/> EET 1025C - Alternating Current Circuits (4 credits) | <input type="checkbox"/> MTB 1322 - Technical Mathematics 2 (3 credits) |
| <input type="checkbox"/> EET 1580 - Power Plant Science (3 credits) | <input type="checkbox"/> PHY 1025 - Basic Physics (3 credits) |
| <input type="checkbox"/> EST 1572 - Power Plant Fundamentals (3 credits) | |
| <input type="checkbox"/> ETI 1701 - Industrial Safety (3 credits) | |
-

8. PROGRAM CORE REQUIRED (23.00 credits)

- | | |
|---|---|
| <input type="checkbox"/> EET 1141C - Electronics 1 (4 credits)
Pre/Co: MAC1105, EET1025C | <input type="checkbox"/> EET 2527C - Motor Starters, Controllers, and Breakers (3 credits)
Pre: EET1141C, 2515C |
| <input type="checkbox"/> EET 2101C - Electronics 2 (4 credits)
Pre: EET1141C | <input type="checkbox"/> EET 2547C - Transformers and Power Distribution (3 credits)
Pre: EET2515C; Co: EET2527C |
| <input type="checkbox"/> EET 2515C - Motors and Generators (3 credits)
Pre: EET1025C; Co: EET1141C | <input type="checkbox"/> EST 2542C - Programmable Logic Controllers 1 (3 credits)
Pre/Co: EET1141C |
| | <input type="checkbox"/> EST 2544C - Programmable Logic Controllers 2 (3 credits)
Pre: EST2542C |
-

CURRENT PROGRAM SHEET (with MODIFICATIONS)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-MECHANICAL OPTION (26057)

EFFECTIVE TERM: Fall 2010 (2010-1)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

- [MAC 1105](#) - College Algebra (3 credits)
-

6. COMPUTER COMPETENCY

Test type(s) needed:

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

7. MAJOR COURSE REQUIREMENTS (~~22.00~~ credits **30 credits)**

- | | |
|---|--|
| <input type="checkbox"/> CGS 1060 - Introduction to Microcomputer Usage (4 credits) | <input type="checkbox"/> ETI 1000 - Industrial Plant Tools and Equipment (2 credits) |
| <input type="checkbox"/> EET 1580 - Power Plant Science (2 credits) | <input type="checkbox"/> EET 1581 - Power Plant Systems (2 credits) |
| <input type="checkbox"/> EST 1572 - Power Plant Fundamentals (3 credits) | <input type="checkbox"/> MTB 1322 - Technical Mathematics 2 (3 credits) |
| <input type="checkbox"/> ETI 1701 - Industrial Safety (3 credits) | <input type="checkbox"/> PHY 1025 - Basic Physics (3 credits) |
-

8. PROGRAM CORE REQUIRED (~~31.00~~ credits **23 credits)**

- | | |
|--|--|
| <input type="checkbox"/> EET 1015C - Direct Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.) | <input type="checkbox"/> ETI 2417C |
| <input type="checkbox"/> EET 1025C - Alternating Current Circuits (4 credits)
(MOVE TO MAJOR CORE REQ.) | <input type="checkbox"/> ETI 2425C |
| <input type="checkbox"/> ETI 1805C | <input type="checkbox"/> ETI 2451C |
| <input type="checkbox"/> ETI 2408C | <input type="checkbox"/> ETM 1315C - Applied Pneumatics and Hydraulics (3 credits) |
| <input type="checkbox"/> ETI 2416C | |

PROPOSED PROGRAM SHEET (with CHANGES)

ASSOCIATE IN SCIENCE DEGREE

PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-MECHANICAL OPTION (26057)

EFFECTIVE TERM: Spring 2011 (2010-2)

Total Credits Required: 68

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

[MAC 1105](#) - College Algebra (3 credits)

6. COMPUTER COMPETENCY

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

7. MAJOR COURSE REQUIREMENTS (30 credits)

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

[EET 1015C](#) - Direct Current Circuits (4 credits)

[EET 1025C](#) - Alternating Current Circuits (4 credits)

[EET 1580](#) - Power Plant Science (3 credits)

[EST 1572](#) - Power Plant Fundamentals (3 credits)

[ETI 1701](#) - Industrial Safety (3 credits)

[ETI 1000](#) - Industrial Plant Tools and Equipment (1 credits)

[EET 1581](#) - Power Plant Systems (2 credits)

[MTB 1322](#) - Technical Mathematics 2 (3 credits)

[PHY 1025](#) - Basic Physics (3 credits)

8. PROGRAM CORE REQUIRED (23 credits)

[ETI 1805C](#) - Introduction to Lifting and Rigging (3 credits)
Pre: EET1581, ETI1701

[ETI 2408C](#) - Welding Processes (3 credits)
Pre: ETI2425C

[ETI 2416C](#) - Power Plant Machines & Components 1 (4 credits)
Pre: EET1581

[ETI 2417C](#) - Power Plant Machines and Components 2 (4 credits)
Pre: ETI2416C

[ETI 2425C](#) - Metallurgical Properties and Dynamics (3 credits)
Pre: PHY1025

[ETI 2451C](#) - Mechanical Maintenance for Power Plants (3 credits)
Pre: ETI2416C

[ETM 1315C](#) - Applied Pneumatics and Hydraulics (3 credits)
Pre/Co: MAC1105

Add New Program

Title: Electrical Power Technology – Nuclear Operations

Program Code: 26059

Effective Term: 2010-2

Add Existing Courses

EST1572	EET1025C	SPC1017
ETI1701	ETI1000	PHI2604
ENC1101	MTB1322	EST2530C
CGS1060	PHY1025	ETI2315C
MAC1105	EET1580	CLP1006
EET1051C	EET1581	EST2520C

Add New Courses

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETG24XX	Reactor Theory for Nuclear Operations	2	1,2,3,5,6,7,8	2010-2

Course Description: This course introduces fundamental nuclear reactor theory and operations principles for students who are preparing for careers in nuclear operations. Students will learn principles related to neutron theory, reactor operational physics, nuclear control rods, and factors impacting reactor operations. Prerequisites: EET1581, PHY1025, and approval by the program chair. A.S. degree credit only. (1 hr. lecture, 2 hr. lab)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2310	Fluid Mechanics	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is for students preparing for nuclear power plant systems operations. Students will learn the basics of fluid theory, pump theory and operations, and how to perform calculations using the International System of Measurements (SI) and United States (US) measurement systems. Prerequisite: EET1580, MAC1105. A.S. degree credit only. (3 hr. lecture)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2XXX	Fundamentals of Reactor Energy Principles	3	1,2,3,5,6,7,8	2010-2

Course Description: This course is for students preparing for nuclear power plant systems operations. Students will learn concepts related to energy principles and their applications in the power plant environment, including basic energy concepts, thermodynamics and thermal processes in the nuclear power plant, heat transfer, heat exchangers, and steam. Prerequisites: EET1580; PHY1025. A.S. degree credit only. (3 hr. lecture)

<u>Course No.</u>	<u>Course Title</u>	<u>Credits</u>	<u>Campus</u>	<u>Eff. Term</u>
ETM2XXX	Power Plant Components for Operations 2	3	1,2,3,5,6,7,8	2010-2

Course Description: A continuation of ETM2XXX Power Plant Components for Operations 1, this course is designed for students who are preparing for careers in industrial and/or power plant operations. Students will learn to develop a deeper knowledge of electro-mechanical systems in the power plant. This course will assist in preparing students for the General Fundamentals Examination (GFES). Prerequisite: ETM2XXX. Laboratory fee. A.S. degree credit only. (2 hr lecture; 2 hr lab).

APPROVE OPPOSE MORE INFORMATION

ASSOCIATE IN SCIENCE DEGREE
PROGRAM OF STUDY: ELECTRICAL POWER TECHNOLOGY-NUCLEAR
OPERATIONS OPTION (26059)

EFFECTIVE TERM: SPRING 2011 (2010-2)

I. GENERAL EDUCATION REQUIREMENTS

1. COMMUNICATIONS (3.00 credits)

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

2. ORAL COMMUNICATIONS (3.00 credits)

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

3. HUMANITIES (3.00 credits)

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

4. BEHAVIORAL/SOCIAL SCIENCE (3.00 credits)

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

5. MATH/SCIENCE (3.00 credits)

☐ [MAC 1105](#) - College Algebra (3 cr)

6. COMPUTER COMPETENCY

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

7. MAJOR COURSE REQUIREMENTS (30.00 credits)

☐ CGS 1060 - Introduction to Microcomputer Usage (4 cr)	☐ ETI 1701 - Industrial Safety (3 cr)
☐ EET 1580 - Power Plant Science (3 cr)	☐ ETI 1000 - Industrial Plant Tools and Equipment (1 cr)
☐ EET 1015C - Direct Current Circuits (4 cr)	☐ ETI 1581 - Power Plant Systems (2 cr)
☐ EET 1025C - Alternating Current Circuits (4 cr)	☐ MTB 1322 - Technical Mathematics 2 (3 cr)
☐ EST 1572 - Power Plant Fundamentals (3 cr)	☐ PHY 1025 - Basic Physics (3 cr)

8. PROGRAM CORE REQUIRED (23.00 credits)

☐ ETI2315C Fluid/Pneumatic Instrumentation (3 cr) Pre: MAC1105 ADDED EXISTING COURSE	☐ ETM2310 Fluid Mechanics (3 cr) ADDED NEW COURSE Pre: EET1580 , MAC1105
☐ EST2520C Process Measurement Fundamentals (3 cr) Pre: EET1025C ADDED EXISTING COURSE	☐ ETM2XXX Power Plant Components for Operations 1 (3 cr) Pre: EET1581 ADDED NEW COURSE
☐ EST2530C Process Control Technology (3 cr) Pre: EET1025 ADDED EXISTING COURSE	☐ ETM2ZZZ Fundamentals of Reactor Energy Principles (3 cr) Pre: EET1580 , PHY1025 ADDED NEW COURSE
☐ ETG24XX Reactor Theory for Nuclear Operations (2 cr) Pre: EET1581 , PHY1025 ADDED NEW COURSE	☐ ETM2YYY Power Plant Components for Operations 2 (3 cr) Pre: ETM2XXX ADDED NEW COURSE