

OFFICE OF THE PRESIDENT

# PASSAIC COUNTY COMMUNITY COLLEGE

Attached are the Board resolutions passed at the April 18, 2017 Board of Trustees meeting. If you have any questions, please call me.

STEVEN ROSE, Ed.D. SECRETARY BOARD OF TRUSTEES

# BOARD OF TRUSTEES PASSAIC COUNTY COMMUNITY COLLEGE AGENDA

At 7:00 p.m. on Tucsday, April 18, 2017, the Board of Trustees of Passaic County Community College will hold a regular meeting. The meeting will take place in <u>The Paterson Room</u>, Passaic County Community College, One College Boulevard, Paterson, New Jersey. The public is invited to attend, per the Open Public Meetings Act, N.J.S.A. 10:4-6. In addition, the Board will meet in executive session to discuss such issues as are allowed pursuant to NJSA 10:4-12. A copy of the agenda and packet are available for public inspection.

**CALL TO ORDER** 

**ROLL CALL** 

**CONSIDERATION OF MINUTES – March 21, 2017** 

## PRESENTATION:

Passaic County Community College Honors Program

**REPORTS** 

President:

Significant Activities

Statement of Revenue and Expenditure Projections

Chairman

## DISCUSSION AGENDA

A. ACADEMIC ITEMS - New Academic Offerings:

Certificate of Achievements: Criminal Justice Studies;

**Public Safety Communications** 

Career Certificate:

Fire Science Management

Nomenclature Changes

Change in Degree Status (Engineering)

B. BUSINESS ITEMS

Purchases of Goods and Services

C. PERSONNEL ITEMS

#### **EXECUTIVE SESSION**

Discussion of personnel, contract negotiations, and matters protected by attorney-client privilege

Continued.....

# BOARD OF TRUSTEES PASSAIC COUNTY COMMUNITY COLLEGE AGENDA – Page 2

# **ACTION ITEMS - Consent Resolution**

# A. Academic Items

Certificate of Achievements:

Criminal Justice Studies;

**Public Safety Communications** 

Career Certificate:

Fire Science Management

Nomenclature Changes

Change in Degree Status (Engineering)

# B. Business Items

Purchases of Goods & Services

# C. <u>Personnel Items</u>

Individual Resolution(s)

**REMARKS:** PUBLIC; TRUSTEES

**ADJOURNMENT** 

Board of Trustees Meeting March 21, 2017 Page 1 of 10

The following are the minutes of the Board of Trustees of Passaic County Community College, One College Boulevard, Paterson, New Jersey held on Tuesday, March 21, 2017.

# CALL TO ORDER

President Rose stated that notice of the meeting was mailed to the Herald News, the Record, the Office of the County Clerk, and posted on the bulletin board of the College Boulevard building on November 16, 2016.

Chairman Nutter stated that inasmuch as adequate notice of the meeting had been given, the meeting was called to order at 7:04 p.m. A copy of the agenda was reviewed and available for public inspection.

# **ROLL CALL**

Richard A. DuHaime Miguel De Jesus, Alumni Representative Yolanda Esquiche Steven M. Rose, Secretary Dennis F. Marco Barbara Tanis, Vice Chairwoman

Sharon C. Smith Harvey J. Nutter, Chairman

Absent:

Robert Davis
Patricia Kebrdle
Alonzo Moody
Ronak Trivedi (arrived at 7:05 p.m.)

President Rose introduced and gave a warm welcome to the College's newest Trustee, Mr. Dennis F. Marco. Trustee Marco thanked him and then provided a brief bio.

# **CONSIDERATION OF MINUTES – January 17, 2017**

Chairman Nutter asked for a motion on Resolution #1 – Consideration of Minutes for January 17, 2017; moved by Trustee Tanis; seconded by Trustee Trivedi. Upon roll call, Resolution #1 passed with members present voting "yes," and Trustee Marco "abstaining."

# **PRESENTATIONS**

# Phi Theta Kappa Year in Review

Professor Gasparino, Instructor in the Human Services Department, and Phi Theta Kappa (PTK) Advisor, spoke briefly on their chapter of PTK, which was "Alpha Eta Chi". She began her presentation by stating that inducting new members at the College was one goal, and noted

that in 2014, there were 70 new members; last year there were 150 new members; and at the present time, nearly 200 new inductees have joined the Chapter. Professor Gasparino went on to highlight a recent event where PTK teamed up with the PCCC Foundation for a "5 K Run for Completion" race having 50 students take part. Fifteen hundred dollars in scholarships will be given out at the gala, split in to three awards. She also spoke about the All U.S.A. Academic Team, stating every year the State has two students nominated for academic excellence. The College's two students were Zenya Koprowski, a Business major, and Doris Pagan, a Human Services major, who was also being recognized on the International Team as a Coca Cola Silver Scholar.

Professor Gasparino then presented the four hallmarks of PTK, which were: service work, fellowship, scholarship and leadership. She introduced the PTK students who would give the presentation, and they were: O'Shane Williams, Tabitha Bloodsaw, Yemely Ventura and Zenya Koprowski. Each student spoke on a different hallmark while showing a PowerPoint of the activities that took place during the year, with each speaking about their experience with PTK, how it has helped them develop their skills and the doors PTK can open for a student. A video of the C4 Completion game, as well as their cheer they created were shown. Professor Gasparino concluded the presentation by stating that she was taking a group of PTK students to the National Convention being held in Nashville this year.

# PCCC Panthers Men's Basketball Team

Dr. Sharon Goldstein, Dean of Student Affairs, spoke about the accomplishments of the Men's Basketball Team having made it to the Semi-Finals with 25 wins, and obtaining a number two National ranking in the NJCAA Division Three Basketball. Region 19. Dean Goldstein then introduced Mr. Wayne Martin, Athletic Director and Men's Basketball Coach; Mr. Anthony Virgil, Assistant Men's Basketball Coach; and Mr. Shakere "Ricky" Banks, for assisting the coaches, as well as the students and their major achievements and future plans.

# Report of the ACCT National Legislative Summit

President Rose gave a brief overview on the trip to Washington, D.C. this past February, noting that Trustee Trivedi was a first-time attendee. He then passed out the "2017 Community College Federal Legislative Priorities." He emphasized the purpose of going to Washington, D.C. was to discuss the agenda and current state of affairs of community colleges. President Rose mentioned that this group was the first to meet the new Secretary of Education, and it was her first address to any group.

Congressman Pascrell spoke passionately about the College having served on its board, and hosted the celebration of the 50<sup>th</sup> Anniversary of New Jersey's Community Colleges. President Rose stated they were able to also meet with Senators Booker and Menendez as well as Congressman Frelinghuysen's staff. Congressman Frelinghuysen is Chairman of the

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Appropriations Committee, and therefore involved in most of the legislation important to community colleges.

President Rose asked Trustee Trivedi to give his impression of his first experience attending the ACCT National Legislative Summit. Trustee Trivedi stated the trip was a learning experience for him and that he had the privilege of meeting with many senators and congressmen during the trip. He also stated that he and his wife have volunteered to help out with the STEM program.

President Rose stated the federal budget presented would be devastating to the College if approved, and many of the colleges' programs would be cut through the proposed budget. Most do not believe the Budget would be approved as presented but cuts are likely nonetheless. At this time he discussed the difficult fiscal situation most colleges, including PCCC, already find themselves in. He noted that even with leaving over 20 positions vacant, removing class sections not being utilized, and cutting expenses wherever possible, we would still need to use some of our reserves and raise tuition next year.

A brief question and answer session took place.

#### **REPORTS:**

President/Chairman: No oral report was given

# **DISCUSSION AGENDA**

The following items were approved for placement on the Action Items agenda. President Rose stated the Perkins funds listed were being used for Nursing and Radiography equipment.

## A. Business Items

## Purchases of Goods and Services

The following goods and services, which were obtained through a Fair and Open Process, in compliance with NJSA 19:44A-20.4 et seq and NJSA18A:64A-25 et al. are so noted and recommended. President Rose stated he would be happy to answer any questions.

- Public Safety Equipment Maintenance and Software
- Information Technology Equipment Updates and Maintenance (Network Load Balancer)
- Information Technology Hardware and Services (Server Backup and Recovery System)
- Public Safety Equipment Software Upgrade and Maintenance (Camera Software Upgrade)

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- Information Technology Hardware (Zero Clients)
- Information Technology Hardware (Laptops)
- Information Technology Software (Licensing and Maintenance for *Elsevier CIOX Health PRISM*)
- Information Technology Hardware (Desktop Computers)
- Clinical Education Products and Software
- Plumbing Repair
- Banking Services
- RFP 18-01 Grant External Evaluator
- RFP 18-02 Health Services Equipment

# **B.** Personnel Items

The personnel items were pending the outcome of the Executive Session discussion.

# C. SPECIAL RECOGNITION

Resolutions for former trustees Assad R. Akhter (2015-2016), and Jeffrey P. Gardner (2012-2017), in appreciation for their dedication and service to the PCCC Board of Trustees.

# **EXECUTIVE SESSION**

Chairman Nutter asked for a motion to go into executive session at 8:13 p.m.; moved by Trustee Trivedi; seconded by Trustee Smith. Chairman Nutter stated that the Board would meet in Executive Session about twenty minutes to discuss personnel, campus expansion, and matters protected by attorney-client privilege, and that no action would be taken. Upon roll call, the motion to go into executive session was approved by all members present voting "yes."

## **ROLL CALL**

Richard A. DuHaime
Yolanda Esquiche
Dennis F. Marco
Sharon C. Smith

Ronak Trivedi
Steven M. Rose, Secretary
Barbara Tanis, Vice Chairwoman
Harvey J. Nutter, Chairman

Absent: Robert Davis Patricia Kebrdle Alonzo Moody Board of Trustees Meeting March 21, 2017 Page 5 of 10

Chairman Nutter called the meeting to order at 8:24 p.m., stating that the Board met in Executive Session to discuss personnel, campus expansion, and matters protected by attorney-client privilege, and that no action was taken.

# **ACTION ITEMS AGENDA**

## Consent Resolution

Chairman Nutter asked for a motion on Resolution #2 - Consent Resolution Items A through C. Trustee Trivedi moved Resolution #2- Consent Resolution Items A through C; seconded by Trustee Esquiche. Upon roll call, Resolution #2 - Consent Resolution Items A through C, passed with all members present voting "yes".

## A. BUSINESS ITEMS

# Purchases of Goods and Services

The following goods and services outlined below, which were obtained through a Fair and Open Process, in compliance with NJSA 19:44A-20.4et. seq. and NJSA 18A:64A-25 et al. are so noted and recommended. The Vice President for Finance and Administration certifies funding is available.

**Public Safety Equipment Maintenance and Software** (Public Bid Exception per NJSA 18A:64A-25.5 a. (19) – Goods or services for proprietary computer hardware, software, or systems)

(Funding Source: FY-2017-18 College Operating Funds; \$13,940.00 Available in FY 2017; \$49,000.00 Budgeted for FY-2018)

Blackboard Transact \$48,791.00

PO Box 200154 (Recommended Award)

Pittsburgh, PA 15251

FY-2017 Amount \$12,197.74 FY-2018 Amount \$36,593.26

Information Technology Equipment Updates and Maintenance (Network Load Balancer) (Public Bid Exception per NJSA 18A:64A-25.5 a. (19) – Goods or services for proprietary computer hardware, software, or systems)

(Funding Source: FY-2017 College Capital Funds; \$5,020.41 Available)

Pricing per Hunterdon County Educational Services Commission Contract 162

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ePlus Technology, Inc. 130 Futura Drive Pottstown. PA 19464 \$5,020.41

(Recommended Award)

Information Technology Hardware and Services (Server Backup and Recovery System) (Public Bid Exception per NJSA 18A:64A-25.5 a. (24) – At or below State Contract pricing) (Funding Source: FY-2017 College Capital Funds; \$330,233.00 Available)

Fulfillment Agent for NJ State Contract 89977

ePlus Technology, Inc. 130 Futura Drive Pottstown, PA 19464 \$50,415.07

(Recommended Award)

Public Safety Equipment Software Upgrade and Maintenance (Camera Software Upgrade) (Public Bid Exception per NJSA 18A:64A-25.5 a. (19) – Goods or services for proprietary computer hardware, software, or systems) (Funding Source: FY-2015 College Capital Funds; \$74.842.27 Available)

Pricing per Middlesex Regional Educational Services Commission Bid 15/16-70

Open Systems 289 Highway 33, Bldg. E, Suite 3 Manalapan, NJ 07726 \$4,356.90

(Recommended Award)

Information Technology Hardware (Zero Clients) (Public Bid Exception per NJSA 18A:64A-25.5 a. (24) – At or below State Contract pricing) (Funding Source: FY-2017 College Capital Funds; \$330.233.00 Available)

Fulfillment Agent for NJ State Contract 89974; Pricing per The Cooperative Purchasing Network Contract R160201

CDW Government
75 Remittance Drive, Suite 1515
Chicago, IL 60675

\$48,651.00

(Recommended Award)

Information Technology Hardware (Laptops) (Public Bid Exception per NJSA 18A:64A-25.5 a. (24) – At or below State Contract pricing) (Funding Source: Carl D. Perkins Career and Technical Education Grant; \$16,510.00 Available)

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Fulfillment Agent for NJ State Contract 89974

CDW Government \$10,552.41

75 Remittance Drive, Suite 1515 (Recommended Award)

Chicago, IL 60675

Information Technology Software (Licensing and Maintenance for Elsevier CIOX Health PRISM) (Public Bid Exception per NJSA 18A:64A-25.5 a. (19) – Goods or Services for proprietary computer hardware, software, or systems) (Funding Source: Carl D. Perkins Career and Technical Education Grant; \$18,200.00 Available)

Flsevier Inc \$15,300.00

Elsevier, Inc. \$15,300.00 1600 JFK Boulevard (Recommended Award)

Philadelphia, PA 19103

Information Technology Hardware (Desktop Computers) (Public Bid Exception per NJSA

18A:64A-25.5 a. (24) – At or below State Contract pricing)
(Funding Source: Carl D. Perkins Career and Technical Education Grant; \$21,000.00 Available)

Fulfillment Agent for NJ State Contract 89974

PKA Tech \$20,374.20

One Executive Boulevard, Suite 101 (Recommended Award)

Suffern, NY 10901

Clinical Education Products and Software (Public Bid Exception per NJSA 18A:64A-25.5 a.

(3) – Materials or supplies only available from a single source)
(Funding Source: Carl D. Perkins Career and Technical Education Grant; \$31,236.36 Available)

Laerdal Medical Corporation \$31,236.36

167 Myers Corners Road (Recommended Award)

Wappingers Falls, NY 12590

Clinical Education Products \$10,419.97 Software Licenses \$20,816.39

Plumbing Repair (Public Bid Exception per NJSA 18A:64A-25.6 – Emergency Purchase) (Funding Source: FY-2017 College Capital Funds; \$11,154.46 Available)

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Mike Fitzpatrick Equipment, Inc. 18 Cozy Lake Road Oak Ridge, NJ 07438

\$11,154.46 (Recommended Award)

Banking Services (Public Bid Exception per NJSA 18A:64A-25.5 a. (1) – Professional Services) (Funding Source: FY-2018 College Operating Funds)

Banking Services for FY-2018

PNC Bank Two Tower Boulevard East Brunswick, NJ 08816

# RFP 18-01 - Grant External Evaluator (Public Bid Exception per NJSA 18A:64A-25.5 a. (15)

Consulting Services)

(Funding Source: Science, Technology, Engineering and Mathematics (STEM) Pathways Grant; \$89,400.00 Available for Current Budget Period; \$397,000 Allocated for 5-Year Performance Period)

External Evaluator for PCCC Pathways 2 STEM Degrees project; 10/01/2016 - 09/30/2021

DVP-Praxis Ltd. 8888 Keystone Crossing, Suite 1300 Indianapolis, IN 46240

\$367,800.00 (Recommended Award)

## RFP 18-02 - Health Services Equipment (Below Public Bid Threshold)

(Funding Source: Trade Adjustment Assistance Community College Career Training (TAACCCT) Grant; \$25,000.00 Available)

Pocket Nurse Enterprises, Inc. 610 Frankfort Road

\$21,000.00

610 Frankfort Road (Recommen

Monaca, PA 15061

(Recommended Award)

# RFP 18-03 - Radiologic Phantom (Below Public Bid Threshold)

(Funding Source: Carl D. Perkins Career and Technical Education Grant; \$28,400.00 Available)

Jefferson Medical & Imaging, Inc. 5470 Berkshire Valley Road Oak Ridge, NJ 07438

\$25,596.00 (Recommended Award)

Bid 18-01 - Solid Waste Disposal

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(Funding Source: FY-2018 College Operating Funds; \$78,000 Budgeted for FY-2018)

Bid for services for FY-2018

Interstate Waste Services of NJ, Inc. 375 Route 1 & 9 South Jersey City, NJ 07306

\$52,269.20 (Recommended Award)

## **B. PERSONNEL ITEMS**

I. Separations A: Robert Sanchez, Financial Aid Officer

B: Aylin D. Brandon, Registrar

II. Appointments A: Rukshana Subhan, Intake Specialist, NJ Prep, TAACCCT4

B: Lakeedia Hunter, Teacher Assistant, Child Dev Center

C: Russell R. Gambino, STEM Success Coach

D: Anajli C. Thanawala, Director of STEM II Program

E: Dennis Reer, Coordinator of STEM III

III. Reappointment of Professional Staff

IV. Grant Support Staff Salary Fiscal Year 2016-2017

V. Grant Administrators' Salaries Fiscal Year 2016-2017

VI. Part-Time Temporary Appointments

## C. SPECIAL RECOGNITION

Resolutions for former trustees Assad R. Akhter (2015-2016), and Jeffrey P. Gardner (2012-2017), in appreciation for their dedication and service to the PCCC Board of Trustees.

<u>REMARKS:</u> <u>Trustees</u>: President Rose reminded the Board that the PCCC Foundation Scholarship Gala would be held on April 27<sup>th</sup> at the Historic Hamilton Club Building, noting it was its Twenty-Fifth anniversary of the Gala. He also mentioned that Accurate Box of Paterson was the honoree this year for all they do in the community and their continued support of the College.

Public: None

# **ADJOURNMENT**

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Chairman Nutter asked for a motion to adjourn the meeting at 8:45 p.m.; moved by Trustee Trivedi; seconded by Trustee Esquiche. Upon roll call, the motion to adjourn the meeting passed unanimously with all members present voting "yes."

# PASSAIC COUNTY COMMUNITY COLLEGE Resolution #1 – CONSIDERATION OF MINUTES

Offered by SMITH Seconded by ESQUICHE

Board of Trustees	Yes	No	Abstain	Absent
Davis				X
DuHaime				X
Esquiche	X			
Kebrdle	X			
Marco				X
Moody	X			
Smith	X			
Trivedi				X
Tanis	X			
Nutter	X			

# CONSIDERATION OF MINUTES

**BE IT RESOLVED** that the Board of Trustees of Passaic County Community College hereby approves the minutes of the March 21, 2017 Board of Trustees meetings, as presented.

**DATED: APRIL 18, 2017** 

# RESOLUTION #2-CONSENT AGENDA ITEMS A, B, and C

Offered by TANIS Seconded by ESQUICHE

	Yes	No	Abstain	Absent
Board of Trustees				
Davis				X
DuHaime				X
Esquiche	X			
Kebrdle	X			
Marco				X
Moody	X			
Smith	X			
Trivedi				X
Tanis	X			
Nutter	X			

**BE IT RESOLVED** that the Board of Trustees of Passaic County Community College, upon the recommendation of the President and the Board of Trustees, hereby approves the following actions:

# A. ACADEMIC ITEMS

# **Certificate of Achievements**

Certificate of Achievement in Criminal Justice Studies, comprised of twelve (12) credits, in Criminal Justice Studies and may be applied toward the Associate in Arts in Liberal Arts in Criminal Justice and the Associate in Science in Homeland Security degrees.

A Certificate of Achievement in Public Safety Telecommunications comprised of twelve (12) credits for completion.

# Career Certificate

The new thirty (30) credit Career Certificate in Fire Science Management. The credits earned in this certificate may be applied toward the Associate in Applied Science Degree in Fire Science Technology.

# RESOLUTION #2-CONSENT AGENDA ITEMS A, B, and C

# Nomenclature Changes

Current Option		New Option
A.A.S. Information Technology Web Technology Option	to	A.A.S. Information Technology Web and Mobile Development Option
Current Career Certificate		New Career Certificate
Fire Science	to	Fire Science Operations

# **Change in Degree Status**

A change in status for the Associate in Science in Liberal Arts – Engineering Science Option to become an Associate in Science in Engineering Science degree.

#### B. BUSINESS ITEMS

# Purchases of Goods and Services

The following goods and services outlined below, which were obtained through a Fair and Open Process, in compliance with NJSA 19:44A-20.4et. seq. and NJSA 18A:64A-25 et al. are so noted and recommended. The Vice President for Finance and Administration certifies funding is available.

Dental Insurance (Employee Dental Insurance Program) (Public Bid Exception per NJSA 18A:64A-25.5 a. (11) – Insurance) (Funding Source: FY-2018 College Operating Budget; \$220,000.00 Budgeted)

Estimated amount for FY-2018. Business Entity and Political Contribution disclosures required.

Horizon Blue Cross Blue Shield of NJ \$220,000.00
Three Penn Plaza (Not to Exceed)
Newark, NJ 07105 (Recommended Award)

Music Studio Equipment (Below Bid Threshold) (Funding Source: Carl D. Perkins Career and Technical Education Grant; \$3,575.00 Available)

Vendor aggregate spend for FY-2017 exceeds \$17,500; prior spend was awarded under Bid 17-15.

# RESOLUTION #2-CONSENT AGENDA ITEMS A, B, and C

Sweetwater Sound Inc. 5501 US Highway 30 West Fort Wayne, IN 46818 \$3,574.00 (Recommended Award)

Advertising (Bus Advertisements) (Public Bid Exception per NJSA 18A:64A-25.5 a. (20) – Advertising) (Funding Source: FY-2017 College Operating Funds; \$23,481.90 Available)

Services for FY-2017. Business Entity and Political Contribution disclosures required.

Intersection Media, LLC PO Box 5179 New York, NY 10087 \$21,346.34 (Recommended Award)

PULLED BY RECOMMENDATION OF COUNSEL-Legal Services (Attachment D)

Pest Control Services (Public Bid Exception per NJSA 18A:64A-25.5 a. (1) – Professional Services) (Funding Source: FY-2017 College Operating Funds; \$20,000.00 Available)

Aggregate spend for FY-2017. Business Entity and Political Contribution disclosures required.

Chem Tec Pest Services 186 Saddle River Road Saddle Brook, NJ 07663 \$20,000.00 (Recommended Award)

Request for Proposal 17-08 – Printing and Direct Mail Services (Funding Source: FY-2018 College Operating Funds; \$22,000.00 Budgeted)

Estimated amount for FY-2018. Pricing is cost-per-service; year two of two year agreement.

Lont & Overcamp 175 US Highway 46 West Fairfield, NJ 07004 \$22,000.00 (Recommended Award)

## C. PERSONNEL ITEMS

I. Separations A: Sara J. Haw, Art Gallery Curator

B: Valerie M. Edwards, Nursing Faculty

C: Jack Daly, Science/Sustainability Faculty

D: Mousumi Chakrabarty, Math Faculty

E: Ivana Djuric, Physics Faculty

# RESOLUTION #2-CONSENT AGENDA ITEMS A, B, and C

- F: Kasandra Pantoja, Sociology Faculty
- G: Marcella Avery, H.I.T. Faculty
- H: Eriberto Valentin, Plants Operation Manager
- I: Paul J. Casey, Director, NRC
- II. Reappointment of Faculty
- III. Non-Reappointment of Faculty
- IV. Adjunct Faculty Spring 2017
- V. Part-Time Temporary Appointments

# PROGRAM ANNOUNCEMENT Career Certificate in Fire Science Management

Date: Spring, 2017

Institution:	Passaic County Community Co	llege	•
New Program Title:	Fire Science Management		
Degree Designation:	Career Certificate		
Programmatic Mission Level for the Institution (see appendix C in A/C manual)	Associate		
Degree Abbreviation:			
CIP Code and Nomenclature (if possible):	43.0202		
Campus(es) where the program will be offered:	Main Campus, Public Safety A	cademy	
Date when program will begin (month and year):	August, 2017		
List the institutions with which articulation agreements will be arranged:	Centenary College, Fairleigh Dickinson University, Thomas Edison College, John Jay College of Criminal Justice		
s licensure required of program Will the institution seek accredit	graduates to gain employment?	☐ Yes	X□ No X□ No
If yes, list the accrediting org	- <del>-</del> -	_	_
Program Announcement Narrati	ve	<u></u>	
Objectives		page(s):	2
Need		page(s):	2
Student enrollments		page(s): page(s): page(s):	3
Program Resources		page(s):	3

1) OUTCOMES: [Briefly summarize the program and indicate its objectives, e.g., the nature and focus of the program, the knowledge and skills students will acquire, any cooperative arrangements with other institutions or external agencies in offering the program.]

Program Intended Learning Outcomes: Upon successful completion of the program students will be able to:		
A. Explain the need for effective delegation of tasks in the fire service.	A. 75% of students will correctly answer an embedded question based on this outcome.	
B. Describe the need for effective resource management in the fire service.	B. 75% of students will correctly answer an embedded question based on this outcome.	
C. Explain the importance of ethical decision making in the fire service.	C. 75% of students will correctly answer an embedded question based on this outcome.	
D. Explain the role of a company officer within the Incident Management System.	D. 75% of students will correctly answer an embedded question based on this outcome.	

# 2) NEED

- a) This Career Certificate in Fire Science Management was designed to better align the Career Certificates to the new course codes required by the National Fire Academy's Fire and Emergency Services Higher Education (FESHE) Model Curriculum, Associates Degree criteria and to allow Fire Science students to earn two Career Certificates (one in Fire Science Operations and the other in Fire Science Management) on their path toward achieving the Associate in Applied Science in Fire Science (AAS.FS) Degree.
- b) This Career Certificate is Career Oriented and Professional in nature. It will provide graduates for the following occupations:
  - Fire Fighters
  - First-line Supervisors of Fire Fighters
  - Commanding Officers in the Fire Service
  - Arson Investigators
  - Fire Service Commissioners and Directors
  - Public Safety Personnel and Directors
- c) The goal of the Career Certificate in Fire Science Management is consistent with the college's mission statement, "To provide high quality college programs to the residents of Passaic County".

d) The following Colleges and Universities in New Jersey offer a Career Certificate in Fire Science Management:

N/a.

# 3) STUDENTS

Anticipated Enrollments				
Year 1 40 Year 3 45				
Year 2 40 Year 4 50				

4) PROGRAM RESOURCES [Briefly describe the additional resources needed to implement and operate the program during the program's first five years, e.g., the number of full-time faculty, number of adjunct faculty, computer equipment, print and nonprint material.]

Additional Resources Needed to Implement the Program			
Full-time Faculty None			
Adjunct Faculty	None		
Computer Equipment	None		
Additional Materials	None		

**RATIONALE:** The Career Certificate in Fire Science Management is intended both to give inservice students a level of achievement that they can use to further their careers and to give preservice students pursuing the AAS Degree in Fire Science Technology with a significant milestone on the path toward achieving their degree.

# **DEGREE REQUIREMENTS (Curriculum)**

# NAME: Career Certificate Fire Science Management (CERT.FSM)

Proposed Certificate Requirements			
General Education (12 Credits)			
Communication	a (3 Credits)		
EN-101	EN-101 Composition I		
Technology (3 Cre	dits)		
Choose one of t	he following:		
CIS-101	Computer Concepts & Applications	3	
Social Science, Hu	manities and Diversity		
(6 Credits)			
Choose two (2) cor	arses from Categories 5, 6, 7, or 8 on p. 56.	6	
Total General Ed	ucation Credits	12	
Major Requirements (9 Credits)			
FS-111	Principles of Emergency Services	3	
FS-211	Principles of Fire and Emergency Services Administration	3	
FS-213 Principles of Fire and Emergency Services Safety and Survival		3	
Total Major Cred	Total Major Credits 9		
Fire Science Technology Electives (6 Credits)			
Choose any two (2) Courses from Criminal Justice, Fire			
	Science, or Homeland Security  Free Electives (3 Credits)  3		
Tite Dietires (5 Cienna)			
Total Certificate	e Credits	30	

# PROGRAM ANNOUNCEMENT

Date: Spring 2017

Institution:	Passaic County Community College		
New Program Title:	Engineering Science		
Degree Designation:	Associate		
Programmatic Mission Level for the Institution (see appendix C in A/C manual)	A.S. Degree		
Degree Abbreviation:	TBA		
CIP Code and Nomenclature (if possible): If outside the classification indicate Not Applicable)	TBA		
Campus(es) where the program will be offered:	Paterson		
Date when program will begin (month and year):	Fall 2017		
List the institutions with which articulation agreements will be arranged:	New Jersey Institute of Technology DeVry University, Rutgers University		
Is licensure required of program	graduates to gain employment?	☐ Yes	⊠ No
Will the institution seek accredit If yes, list the accrediting org		☐ Yes	⊠ No
Program Announcement Narrati Objectives	ve	page(s): 2	
<ul><li>Need</li></ul>		page(s): 4	<del></del>
<ul><li>Student enrollments</li></ul>		page(s): 6	
Program Resources		page(s): 7	

#### PROGRAM DESCRIPTION:

The Engineering Science program is designed to provide a foundation for further studies towards the bachelor's degree in variety of Engineering disciplines.

The curriculum provides a base of mathematics, science, and engineering fundamentals common to the first two years of a Baccalaureate engineering program. Engineering electives provide special courses to suit particular interest in any sub-discipline of engineering including Electrical/Computer Engineering, Civil/Mechanical/Industrial Engineering, and Chemical/Biomedical Engineering.

The program fulfills the *general education* required credits set by New Jersey's community colleges (31. credits), and will have an additional (30. credits) divided into two categories; a *common core classes* and *engineering electives*.

#### CATALOG DESCRIPTION:

This degree is designed to provide students with the core knowledge and skills needed for a Bachelor of Science degree in variety of engineering programs. The curriculum provides a base of mathematics, science and engineering fundamentals to suit particular interest in multiple engineering disciplines including Electrical/Computer engineering, Civil / Mechanical engineering, Chemical/Biomedical engineering and industrial engineering.

#### 1. PROGRAM OBJECTIVES:

The Engineering science program offers the first two years of engineering science curriculum and prepares graduates for transfer to bachelor's degree programs at leading engineering colleges and universities.

The objectives of the new A.S degree in engineering science are designed for graduates to possess;

- (1) the fundamental engineering knowledge and skills,
- (2) the appropriate interpersonal skills, and
- (3) the knowledge and attitudes to be a responsible engineer.

#### 2. PROGRAM LEARNING OUTCOMES:

To achieve the objectives of the program, students will:

- 1- Apply knowledge of Mathematics and principles of sciences-including chemistry and physics to solve engineering problems.
- 2- Use techniques, skills and modern engineering tools to construct and simulate science and engineering experiments
- 3- Communicate technical information using written, verbal and graphical presentations.
- 4- Demonstrate the professional and ethical responsibility of the engineering fields

# **Program Intended Learning Outcomes:**

- 1- Apply knowledge of Mathematics and principles of sciences-including chemistry and physics to solve engineering problems.
- 2- Use techniques, skills and modern engineering tools to construct and simulate science and engineering experiments in the chosen engineering electives
- 3- Communicate technical information using written, verbal and graphical presentations.
- 4- Demonstrate the professional and ethical responsibility of the engineering fields

# Means of Program Assessment and Criteria for Success:

Learning Outcomes (LO) will be assessed by:

LO(1): 70% of the students will score 70 or higher on an embedded questions in the final exam, as graded by a standardized rubric in the following courses: ES 206, ET 121, CH 112, MA 201

LO(2): 70% of students will score a 70 or higher in selective engineering elective courses with laboratories requirement and final projects.

LO(3): 70% of students will score a 70 or higher in oral presentation and written assignment in ES 101, and 70% of the student will pass the College Writing Exam (CWE) on their first attempt.

LO(4): 70% of students will successfully complete an ethics case study in ES 101

Assessment: Engineering Science Program Assessment Curriculum Map

LEARNING OUTCOMES	1. Apply knowledge of Mathematics and principles of sciences-including chemistry and physics to solve engineering problems.	2. Use techniques, skills and modern engineering tools to construct and simulate science and engineering experiments in the chosen engineering electives	3. Communicate technical information using written, verbal and graphical presentations.	4. Demonstrate the professional and ethical responsibility of the engineering fields
MA 201 Calculus III	(LO1)			
MA 202 Differential Equations	(LO3)			
CIS 165 Fund of C++ Program		(LO1)		
PY 121 Physics II	(LO1)	(LO7)	(LO2)	
ES 101 Intro to Engineering	(LO3)	(LO2)	(LO6)	(LO5)
ELECTIVES:		!		
MA 103 Basic Statistics	(LO2)	(LO6)		
CH 112 General Chemistry II	(LO1)	LAB	LAB	
CH 211 Organic Chemistry I		(LOS), LAB	LAB	
ES 206 Eng Mechanics I (Statics)	(LO1)	(LO4)		
ES 207 Eng Mechanics II (Dynamics)		(LO1)		
ET 101 Fundamentals of CAD		(LO4)		
ET 121 Basic Electronics I		(LO3), LAB	LAB	
ET 226 Digital Circuits		(LO3), (LO7), LAB	LAB	
ET 227 Intro to Microprocessors		(LO2), LAB	LAB	
ET 230 Introduction to PLC		(LO4) , (LO5), LAB	LAB	
PY 220 Physics III	(LO4)	(LO8), LAB	LAB	

#### 3. NEED

A rationale for the proposed program is to:

- Attract Local High School and STEM Students to Engineering
- Improve retention and graduation rates in the engineering program
- Provide structured academic path to a four-year institution for all engineering science student.
- Address the need for interdisciplinary curriculum set by the higher division engineering schools

The proposed program addresses the upper division engineering schools' new vision/model – constantly pushing specialized topics into the first four semesters-by introducing the engineering electives into its curriculum. To address this divergence, the community colleges must introduce specialized courses into an already full curriculum or the students must transfer before earning an associate's degree.

Engineering science covers a wide range of applications and industries. Today there are over 40 different types of engineering degrees available. Generally, engineering has four major branches: Mechanical, Chemical, Electrical and Civil with sub-branches of each discipline. The Bureau of Labor Statistics (BLS) projects that the number of engineering jobs will continue to grow at a rate of ~ 4%, between 2015 and 2025. In addition, BLS projects that over 1 million scientists and engineers will be needed to replace those projected to exit science and engineering occupations.

The Engineering Science A.S. degree curriculum focuses on making sure that students exit with their Associates Degrees and further focuses on the students' seamless and successful transitions to the four-year programs. The proposed program intends to provide a structured transfer pathway/ pipeline to local state and private engineering schools and attracts three types of students: 1) under-prepared students who are otherwise talented but require an alternative path to traditional engineering due to deficiencies in math and/ science preparation out of high school, 2) students from the local high schools who are interested in careers in engineering and desire to remain in the local area due to financial constraints, 3) STEM students- over 30%-who are interested in both the sciences and their applications to engineering.

# **Program Enrollment Analysis**

The total ENGR major enrolled over the past ten years shows that the number of students almost doubled. The total enrollment in the Fall 2006 academic year included 105 ENGR majors, and in Fall 2015 academic year included 210 ENGR majors. Tables 1 & 2 detail ENGR enrollment patterns over the past 10 years. Table 3 details engineering science graduates. As can be seen in this table, there are very low number of students graduate from our current program. Table 4 shows the number of transfers out of the ENGR program. Student attrition throughout the ENGR program has hindered students' academic success. As Table 4 depicts there were no graduates of the ENGR program from the Fall 2010 cohort. This data demonstrates urgency in developing an engineering program that focuses on making sure that students exit with their Associates Degrees to support retention data and furthermore on the students' seamless and successful transitions to the four year programs.

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<sup>&</sup>lt;sup>1</sup> Eng Science Program Review - External Consultant (2015/2016)

Table 1
Engineering Science Majors,
Fall 2006 - Fall 2016

	Overall Enrollment	Engineering Sc	ience Majors
Fall 2006	7,301	105	1.4
Fall 2007	7,493	113	1.5
Fall 2008	7,902	119	1.5
Fall 2009	8,883	112	1.3
Fail 2010	9,548	151	1.6
Fall 2011	10,012	166	1.7
Fall 2012	9,782	199	2.0
Fall 2013	9,129	190	2.1
Fall 2014	8,968	224	2.5
Fall 2015	8,389	210	2.5
Fall 2016	8,148	189	2.3
Total	95,555	1,778	1.9

Engineering Science Majors, Spring 2006 - Spring 2016

Table 2

	Overall Enrollment	Engineering Science Majo	
Spring 2006	6,973	83	1.2
Spring 2007	7,142	98	1.4
Spring 2008	7,004	103	1.5
Spring 2009	7,343	118	1.6
Spring 2010	8,640	126	1.5
Spring 2011	9,273	152	1.6
Spring 2012	9,100	175	1.9
Spring 2013	8,670	183	2.1
Spring 2014	8,612	178	2.1
Spring 2015	8,613	208	2.4
Spring 2016	7,949	198	2.5
Total	89,319	1,622	1.8

Table 3
Engineering Science Graduates,
2006-2016

N	Total Graduates	Engineering Science Graduates	
2006-2007	463	3	0.6
2007-2008	396	6	1.5
2008-2009	449	6	1.3
2009-2010	484	7	1.4
2010-2011	581	5	0.9
2011-2012	597	5	8.0
2012-2013	772	9	1.2
2013-2014	921	7	0.8
2014-2015	1,446	6	0.4
2015-2016	1,265	20	1.6
Total	7,375	74	1.0

Table 4

Outcomes of Fall First-time Engineering Science Students,
Fall 2010 - Fall 2016

	First-time Students	Transferred without Graduating from PCCC*		Graduated from PCCC	
Fall 2010	31	11	35.5	0	0.0
Fall 2011	28	6	21.4	1	3.6
Fall 2012	43	11	25.6	6	14.0
Fall 2013	28	7	25.0	0	0.0
Fall 2014	35	3	8.6	3	8.6
Fall 2015	46	8	17.4	0	0.0
Fall 2016	29	0	0.0	0	0.0
Total	240	46	19.2	10	4.2

<sup>\*</sup>Only includes students who transferred to a 4 year institution.

# 4. STUDENTS

Anticipated Enrollments			
Year 1	30	Year 3	50
Year 2	40	Year 4	55

#### 5. PROGRAM RESOURCES

NAME:

The proposed curriculum is based on classes that are already offered, or classes that will replace existing classes. The only additional course is "Introduction to Programmable Logic Controller". This course will be taught by Prof. Dada, who holds a M.S Degree in Electrical Engineering and three Automation and Control industrial certifications.

Additional Resources Needed to Implement the Program		
Full-time Faculty		
Adjunct Faculty		
Computer Equipment	NONE*	
Additional Materials	NONE	

<sup>\*</sup>Engineering department has an existing Engineering Laboratory that is fully equipped to meet program objectives

# 6. DEGREE REQUIREMENTS (Curriculum)

General Education Requirements: (All courses selected for this program must correspond to PCCC'S approved list of General Education courses. Students should meet with an advisor to select appropriate courses required by the transfer institution of choice. Communication EN101 Composition I **EN102 Composition II** Mathematics/Science MA 120 Calculus I 4 MA 121 Calculus II 4 CH 111 General Chemistry I 4 PY 120 Physics I 4 Social Science EC 101 Economics I 3 EC 102 Economics II 3 **Humanities Electives** MU106 Appreciation of Music or AE 101 Appreciation of Art or EN 205 Introduction to Literature or PH 101 Introduction to Philosophy TOTAL GENERAL EDUCATION CREDITS 31 **Major Requirements:** MA 201 Calculus III 4 4 MA 202 Differential Equations CIS 165 Fund of C++ Program 4 PY 121 Physics II 4 2 ES 101 Intro to Engineering TOTAL MAJOR CREDITS 18

Engineering Electives Requirements:	
Select 11-13 Engineering elective credits depending on the branch of Engineering a student	
wishes to pursue	
Biomedical/Chemical Engineering	
MA 103 Basic Statistics	3
CH 112 General Chemistry II	4
CH 211 Organic Chemistry I	4
Mechanical/Civil Engineering	
ET 101 Fundamentals of CAD	3
ES 206 Eng Mechanics I (Statics)	3
ES 207 Eng Mechanics II (Dynamics)	3
PY 220 Physics III	4
Electrical/Computer Engineering	
ET 121 Basic Electronics I	4
ET 226 Digital Circuits	4
ET 227 Intro to Microprocessors	4
Industrial Engineering	
CH 112 General Chemistry II	4
ES 207 Eng Mechanics II (Dynamics)	3
ET 230 Introduction to PLC	4
TOTAL ELECTIVES CREDITS	11-13
TOTAL DEGREE CREDITS	60-62

# Course Description:

# CH 112 General Chemistry II

(3:3) 4 credits Prerequisites: CH 111 and MA 108

This course covers thermodynamics, chemical equilibrium, oxidation-reduction reactions, electrochemistry, reaction rates and mechanisms, coordination complexes, main group chemistry, and nuclear chemistry. Laboratory experiments reinforce theoretical principles. This course is a continuation of CH 111.

# CH 211 Organic Chemistry I

(3:3) 4 credits Prerequisite: CH 112

This course covers the alkanes, alkenes, alkynes, and alkyl halides. Major classes of reactions covered include: nucleophilic substitution, elimination, addition, free radical and polar mechanisms. Reaction intermediates and chemical synthesis are stressed. Laboratory experiments include an introduction to purification and identification techniques as well as an introduction to chemical synthesis. This course is a laboratory science course intended for science, pre-professional, and chemical engineering majors.

## CIS 165 Fundamentals of C++ Programming

(4:0) 4 credits. Prerequisite: CIS 108

This course introduces the C++ programming language. Emphasis is placed on the logical analysis of a well-structured program in the language, which is capable of handling low level language features. The run-time libraries, program correctness, portability, and maintainability are thoroughly discussed. Systems and application programs are constructed during open lab hours.

# ES 101 Introduction to Engineering

(2:0) 2 credits

This course introduces the various disciplines of engineering, with emphasis on learning concepts and practicing skills that are used in the engineering and engineering technology fields. It is designed to develop students' ability to identify and practice the different types of engineering problem solving, make effective written communications and oral presentations, and understand the professional, ethical, and social responsibilities of an engineer. Feasibility and project management concepts are also introduced.

# ES 206 Engineering Mechanics I

(Statics) (3:0) 3 credits. Prerequisites: MA 120, PY 120

This course covers basic concepts of engineering mechanics, specifically statics and the equilibrium of particles and rigid bodies subject to concentrated and distributed forces, and analysis of structures, beams, and cables.

# ES 207 Engineering Mechanics II (Dynamics)

(3:0) 3 credits. Prerequisites: ES 206, MA 121

This course covers the formulation of the motion of particles and rigid bodies and the relationship of the forces and motion of the particles, the study of work and energy, principles of conservation of energy, impulse and momentum, the principle of conservation of momentum, and the vibrations in parts and machines.

## ET 101 Fundamentals of CAD

(3:0) 3 credits

This course covers the basic principles of Computer-Aided Design (CAD) and drafting. Using the CAD system allows hands-on experience in learning how to create, prepare, store, and retrieve technical drawings and related information.

## ET 121 Basic Electronics I

(3:3) 4 credits. Prerequisite: ET 111

This course introduces diodes, bipolar junction transistors, other solid-state devices, and their use in analog and digital circuits. Topics include the fundamentals of semiconductor theory, diode theory and applications, and transistor amplification and biasing. The lab provides practical experience in characterizing electronic devices and analyzing circuits that contain these devices.

## ET 226 Digital System

(3:3) 4 credits. Prerequisite: ET 111

This course introduces the theory, applications, and design of digital circuits. Topics include digital numbering systems and codes, Boolean algebra, combinational logic circuits, flip-flops and their applications, the fundamentals of synchronous logic design, and digital arithmetic. The lab provides practical experience with TTL logic devices and circuits.

## ET 227 Introduction to Microprocessors

(3:3) 4 credits. Prerequisite: ET 226

This course covers the basic structure and operation of the microprocessor, the basic types of memory circuits, control signal, and assembly language. A variety of software and hardware is used to perform various troubleshooting concepts.

# ET 230 Introduction to Programmable Logic Controller

(3:3) 4 credits. Prerequisites: ET 111 or permission of department chairperson

This course is designed to provide students with skills and knowledge associated with programmable logic controllers-PLC. It includes mastery of introductory/advanced instructions, operations and languages that are defined in the IEC61131-3 programmable logic controller standard; thus preparing students to write and troubleshoot control programs for varieties of Engineering application.

#### **MA 103 Basic Statistics**

(3:0) 3 credits Prerequisite: MA 025A or MA 025 or MA 025B or Test placement This course covers the development and application of statistical concepts including descriptive statistics, probability, normal distribution, tests of hypothesis testing differences, sampling theory, and correlation.

# MA 201 Calculus III

(4:0) 4 credits Prerequisite: MA 121

This course is a continuation of MA 121. Emphasis is placed on the study and application of power series, polar coordinates, multivariable functions, vector valued functions, partial derivatives, multiple integration, and vector calculus.

# **MA 202 Differential Equations**

(4:0) 4 credits Prerequisite: MA 121

This course covers the application of differential equations and their standard methods of solution. Topics include linear differential equations of the first and higher orders, linear equations of the second order, numerical approximations, and series solution.

# PY 121 Physics II

(3:3) 4 credits. Prerequisite: PY 120

This is the second in a three-semester, calculus-based physics sequence. It covers waves, sound, electrostatics, electric fields, Gauss's law, electrical potential, capacitors, circuits, magnetic fields, Ampere's law, Lenz's law, induction, and alternating currents.

# PY 220 Physics III

(3:3) 4 credits Prerequisite: PY 121

This is the third in a three-semester, calculus-based physics sequence. It covers electromagnetic waves, geometric optics, interference, diffraction, relativity, quantum mechanics, atomic and nuclear structure, and elementary particles.

# Similar Programs:

Yes, the following post-secondary institutions offer engineering programs:

College Name	Program Type	City	State
ESSEX COUNTY COLLEGE	Associate in Science in Engineering	NEWARK	NJ
MIDDLESEX COUNTY COLLEGE	Associate in Science Engineering	EDISON	NJ