ARTICULATION AGREEMENT

Prince George's Community College
Associate of Science in Engineering Program

Frostburg State University
Bachelor of Science in Engineering

Entered into this 18th day of June, 2018.

Ronald Nowaczyk, Ph.D.
President
Frostburg State University

Charlene M. Dukes, Ed.D.
President
Prince George's Community College

Elizabeth Throop, Ph.D.
Provost
Frostburg State University

Clayton A. Railey, III, Ph.D.
Vice President for Academic Affairs
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Dorothy I. Campbell, Ph.D.
Interim Dean
College of Liberal Arts and Sciences
Frostburg State University

Christine Barrow, Ph.D.
Dean
Science, Technology, Engineering, and Mathematics
Prince George's Community College

Eric J. Moore, Ph.D.
Chair
Department of Physics and Engineering
Frostburg State University

Mark Hubley, Ph.D.
Acting Chair
Department of Physical Sciences and Engineering
Prince George's Community College

This agreement is effective with new Frostburg State University admits Fall 2018.
This agreement will be reviewed annually.

ARTICULATION AGREEMENT

Prince George's Community College, Associate of Science in Engineering
and
Frostburg State University, Bachelor of Science in Engineering.

RECITALS

Prince George's Community College (hereafter referred to as "PGCC"), a community college in Prince George's County, Maryland, and Frostburg State University ("FSU"), a comprehensive regional institution in Western Maryland and a constituent institution of the University System of Maryland, agree to offer an articulated program leading to the award of an Associate of Science (A.S.) in Engineering Degree and a Bachelor of Science (B.S.) in Engineering. The parties further agree that students from PGCC, through this articulation agreement, will be permitted to transfer credits earned for the A.S. at PGCC to FSU, leading to the award of the B.S. degree in Engineering at FSU. The only concentration available pursuant to this agreement is electrical engineering.

I. Purpose

a. It is the intent that this articulation agreement will facilitate a smooth transition from PGCC's Engineering Transfer program to the B.S. in Engineering program at FSU. As a result of this articulation agreement, PGCC graduates will understand how FSU transfers the credits earned at PGCC. This agreement provides a systematic plan for students to receive both the A.S. degree from PGCC and the B.S. degree in Engineering from FSU.

b. This agreement sets forth a clear set of responsibilities and expectations for both institutions. The parties agree to work collaboratively to meet the needs of PGCC graduates in facilitating transfer to FSU.

c. PGCC encourages graduates to continue their educational pathway in engineering for both personal and professional development, as well as career advancement in the engineering profession. This articulation agreement for completion of the B.S. in Engineering facilitates students' successful achievement of credentials in the field.

II. Requirements of the Program

a. Students must have completed all math, science, and core engineering courses required for the A.S. degree at PGCC in order to enter into the transfer program. A maximum of seventy (70) credit hours from PGCC will be allowed toward fulfillment of the one hundred twenty (120) credit hours required for completion of the B.S. degree.

b. Engineering transfer students from PGCC will have their coursework evaluated by FSU to determine which FSU general education requirements and discipline requirements have been met. PGCC courses shall be evaluated by FSU for transferability, and FSU shall accept courses for transfer at its sole discretion. By taking full advantage of the PGCC-FSU course agreements described below, the transfer student will matriculate at FSU with junior standing.

c. In accordance with Code of Maryland Regulations (COMAR), all courses meeting general education requirements at PGCC will transfer to FSU as general education courses.

d. Students must maintain a minimum of a 2.0 cumulative grade point average in order to transfer to the FSU Engineering Program.

e. The maximum number of credits that will be accepted by FSU toward degree requirements from non-direct classroom instruction (including CLEP, AP, IB and FSU Special Departmental examination scores) is thirty (30) credits. Tech Prep credits will transfer where appropriate, as will credit awarded for experiential learning ("life experience") if recorded on PGCC's transcript.

f. While PGCC and FSU do not presently have a dual admission program, if the parties later enter into such a program, this agreement will not preclude students from participation and students may apply for and receive the benefits of dual admission. Those students shall then be subject to the policies of said program should they apply.

g. PGCC students who have completed the A.S. degree will be given every consideration for financial assistance and will be eligible to compete for academic scholarships at FSU.

h. This agreement becomes effective on the date set forth on the first page of this document. PGCC and FSU agree to publicize this program. The parties further agree to monitor the performance of the program and to make revisions as may be mutually agreed upon as necessary. Curricula for engineering programs undergo frequent change and this agreement will be amended to reflect such changes as they occur. Amendments will be made in writing and appended to this

agreement. Amendments need only be approved by the deans and chairs from both institutions.

i. This agreement may be terminated by either party with ninety (90) days written notice to the other. The parties agree that termination shall include an agreement that students currently enrolled in the program at the time of termination shall be permitted to complete the program as described herein.

III. A.S. in Engineering - B.S. in Engineering Transfer Courses

The following indicates the transfer of course agreement between the PGCC and FSU:

a. General Education Requirements to be Completed at PGCC (30 credits)

Frostburg Requirement	PGCC Equivalent	Explanation/Notes
ENGLISH COMPOSITION (3 credits)	EGL 1010 Composition I: Expository Writing	
FINE AND PERFORMING ARTS (3 credits)		Will need to complete once admitted into FSU
HUMANITIES (6 credits)	PHL 1090 Intro. to Logic	Required for engineering students at PGCC Will need to complete additional 3 credits once admitted into FSU
SOCIAL SCIENCE (6 credits)	ECN 1030	One additional course from a difference discipline should be taken once admitted into FSU
MATHEMATICS (3-4 credits)	MAT 2410 Calculus I	Required in the A.S. program
NATURAL SCIENCE (7 - 8 cr; one course must have a lab component)	PHY 1030 General Physics I AND CHM 2000 Chemistry for Engineers	Required in the A.S. program
MODES OF INQUIRY ELECTIVE (3 credits)	~~SPH~~ 1090 Interpersonal Communication	
FSU Colloquium (7 credits)	~~ECN 2040~~ PHY 2030	

b. Degree Program Requirements to be Completed at PGCC (31 credits)

The B.S. degree with a major in Engineering at FSU requires students to successfully complete the following course work. Some of these courses also may meet general education requirements, as indicated above.

Frostburg State University			PGCC Program Equivalent
Course Number	Course Title	Credit Hours	
ENES 100	Introduction to Engineering Design	3.0	EGR 1010
CHEM 201	General Chemistry I	4.0	CHM 2000 Already in GEP above
MATH 236	Calculus I	4.0	MAT 2410 Already in GEP above
MATH 237	Calculus II	4.0	MAT 2420
MATH 238	Calculus III	4.0	MAT 2430
MATH 432	Differential Equations	3.0	MAT 2460 (transferred in as 3 credits, although 4 credit course at PGCC)
PHYS 261	Principles of Physics I – Mechanics	3.0	PHY 1030 Already in GEP above
PHYS 262	Principles of Physics II – Electricity and Magnetism	4.0	PHY 2030 Already in GEP above
PHYS 263 AND PHYS 264	Principles of Physics III – Acoustics and Optics AND Principles of Physics IV – Thermodynamics and Modern Physics	4.0	PHY 2040
ENEE 114	Programming Concepts for Engineers	3.0[1]	EGR 1140
ENEE 204 AND ENEE 206	Basic Circuit Theory AND Fund. Digital and Electric Circuits Lab	4.0[2]	EGR 2030
ENEE 244	Digital Logic Design	3.0	EGR 2440
ENEE 322	Signal and System Theory	3.0	EGR 2050
TOTAL Program Credits= 31			

c. Degree Program Requirements to be Completed at FSU

All FSU bachelor's degree candidates must complete a minimum of 39 upper-division

[1] Course is 4 credits at FSU, but 3 credits at PGCC.

[2] EGR 2030 is equivalent to the combination of FSU's ENEE 204 and 206.

(300-400) credit hours.

Frostburg State University			Notes
Course Number	Course Title	Credit Hours	
ENEE 445	Intro. to Modern Communication Systems	3.0	
ENEE 380	Electromagnetic Theory	3.0	
ENGL 338	Technical Writing	3.0	
ENES 401	Fundamentals of Energy Engineering	3.0	
ENEE 303	Analog and Digital Electronics	3.0	
ENEE 350	Computer Organization	3.0	
ENEE 307	Electronic Circuits Design	2.0	
ENES 491	Engineering Seminar	3.0	
ENES 310	Mechatronic and Robotic Design	3.0	
ENEE 439	Topics in Signal Processing	3.0	
ENEE 475	Power Electronics	3.0	
ENEE 408	Capstone Design Project	3.0	
	Identity and Difference course (general education)	3.0	Fulfills GEP requirement.
	Humanities course	3.0	Fulfills GEP requirement
	Fine and Performing Arts course	3.0	Fulfills GEP requirement.
	Social Science course	3.0	Fulfills GEP requirement
	300-400 level Technical Electives	6.0	Must be ENES, ENEE, ENME, or CHEM 304 courses.
ENME 373	Advanced Computer-Aided Design	3.0	
	Elective (any)	3.0	Required for 120 credits for graduation
Total = 56			

d. Course Sequencing

Engineering Transfer students transferring to the Engineering Program at FSU shall be notified by PGCC and FSU that the Engineering curriculum is built upon a series of established course sequences. For students to progress through the program, they must have the appropriate pre-requisites, co-requisites, and must maintain a minimum 2.0 GPA.

Students wishing to participate in the program should develop an education plan at PGCC by contacting:

Mark Hubley, Ph.D.
Acting Chair, Department of Physical Sciences and Engineering
Prince George's Community College
301-546-0422
hubleymj@pgcc.edu

PGCC will direct students interested in participating in the Engineering Transfer program to apply for admission to FSU, indicating Engineering as the intended major. Applications can be submitted online at: www.frostburg.edu.

Contact person at FSU for the program is:

Linda Steele
Program Coordinator, Department of Physics and Engineering
Frostburg State University
301-687-4137
lsteele@frostburg.edu