

ARTICULATION AGREEMENT

Montgomery College
Associate of Science in General Engineering

900 Hungerford Drive
Rockville, MD 20850

and

Shepherd University
Bachelor of Science in Computer Engineering

301 N King Street
Shepherdstown, WV 25443

Montgomery College (hereafter referred to as MC), a community college in Montgomery County, Maryland and Shepherd University (hereafter referred to as SU) a state higher education institution in Shepherdstown, West Virginia agree to offer an articulated program leading to the award of an associate's degree in General Engineering and a bachelor's degree in Computer Engineering. MC course agreements outlined below ensure that the transfer student will matriculate with junior standing.

I. PURPOSE

The purpose of this Articulation Agreement (the "Agreement") is to establish collaboration between SU and MC to facilitate the transfer and degree completion of students earning the Associate of Science in General Engineering at MC to the Bachelor of Science in Computer Engineering at Shepherd University. This Agreement provides a systematic plan for students to continue their higher education beyond their Associate's Degree from MC. The following general principles guide the operation of this Agreement:

II. ADMISSIONS

Applicants successfully completing the articulated program with a 2.8 or better grade point average who have not matriculated at any other institution of higher education will be guaranteed transfer admission to SU upon completion of the SU admissions application process.

III. ACCEPTANCE OF CREDITS

A maximum of 72 credit hours from MC will be allowed toward fulfillment of the 120 credit hours required for baccalaureate completion.

A. General Education Credits:

All courses meeting general education requirements at MC will transfer to SU to satisfy lower-level general education requirements. A completed general education program shall transfer as indicated in Appendix A.

B. Credits Accepted from Other Institutions:

If courses from other institutions or other sources of academic credit are evaluated by MC and applied toward the Associate's Degree, the student must submit the score report to be evaluated by SU. Credit will be applied as determined by an SU evaluation.

C. Non-Direct Classroom Credits:

There is currently no maximum number of credits that will be accepted by SU toward degree requirements from non-direct classroom instruction (including CLEP, Co-op Education, AP, and other nationally recognized standardized examination scores). The policy on the transferring in of non-direct classroom credit can be found in SU's online catalog under "Miscellaneous Admission Information". Tech Prep credits will not transfer to SU. Credit awarded for experiential learning ("life experience") is not recognized by, and is not transferable to SU.

IV. SCHOLARSHIPS AND FINANCIAL AID

MC students who have completed an Associate's Degree will be given every consideration for financial assistance and will be eligible to compete for need and non-need based academic scholarships at SU.

V. BENEFITS TO STUDENTS

SU offers the following benefits for MC students who transfer under this Agreement:

Application fee waiver

Transfer Advising Access

Transfer Orientation

Guaranteed Admission with completed A.S. in General Engineering and a 2.8 GPA

Eligibility for T.O.P.S. program which could result in either a 25% or 35% tuition discount

VI. PROMOTION/OUTREACH

MC and SU agree to publicize this Agreement via, but not limited to marketing materials and information sessions. SU's logo and transfer pathway will be featured on MC's transfer agreements website. MC and SU agree to collaborate to ensure successful transfer day visits, and advising sessions. Any and all marketing promotional, or publication material developed pursuant to this Agreement prepared or developed by one party must be reviewed and approved in writing by the other party prior to use. Neither party shall use the name or mark of the other party without prior consent.

VII. REVIEW OF AGREEMENT

- A.** MC and SU agree to monitor the performance of this Agreement and to review biennially.
- B.** SU will establish a mechanism to provide information on the academic progress of the MC student enrolled as a result of this Agreement, including but not limited to statistical data of aggregated student performance. Specific student outcomes may only be reported in the event of a student consenting to such in writing, and Shepherd will not have any obligation to solicit students to agree to such release of their information.
- C.** MC and SU agree to communicate program changes in a timely manner to avoid disruption of student progress toward degree completion.

VIII. TERMINATION

The Agreement may be terminated by either party for due cause and after adequate notice in writing to all parties. Termination of the Agreement will not affect any students currently enrolled at MC in the major at the time of termination if they remain continuously enrolled to graduation and enroll at SU within 6 months of their graduation from MC, and they shall be able to transfer credits pursuant to this Agreement.

IX. APPENDICES

As part of this agreement, the following have been included:

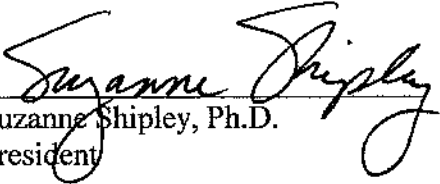
- A.** Course-by-course articulations, including satisfaction of general education requirements at both MC and SU
- B.** A Suggested Transfer Pathway, showing an example of how students can complete an Associate's Degree from MC and a Bachelor's Degree from SU.
- C.** An academic advising sheet showing requirements for a completed associate's degree in General Engineering at MC. MC Students will follow this curriculum chart to ensure completion of their degree and a smooth transition into SU.

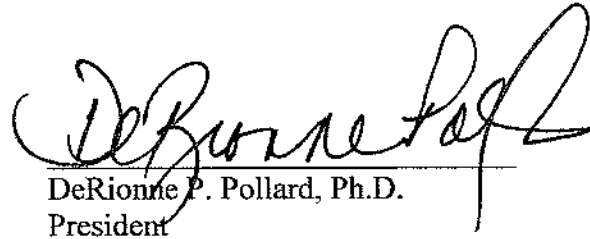
In witness thereof, the parties hereto have executed or approved this Agreement on the date entered below.

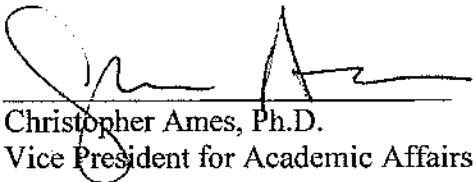
Entered into this third day of September, 2014.

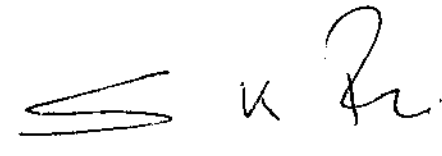
For Shepherd University:


For Montgomery College:

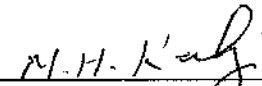

Suzanne Shipley, Ph.D.
President


DeRionne P. Pollard, Ph.D.
President


Christopher Ames, Ph.D.
Vice President for Academic Affairs


Sanjay Rai, Ph.D.
Senior Vice President for Academic Affairs


Colleen Nolan, Ph.D.
Dean of the School of Natural Sciences and Math


Muhammad Kehnemouyi, Ph.D.
Interim Dean for Science, Engineering, and
Technology

Appendix A, Course by Course Articulation Guide

Courses equivalencies listed below are part of an articulated program leading to the award of an associate's degree in **General Engineering** and a bachelor's degree in **Computer Engineering**

<i>MC Course ID (Fall 2014 ID)</i>	<i>MC Course Title</i>	<i>MC Credit</i>	<i>Transfer Equivalent</i>	<i>Course Title at Transfer Institution</i>	<i>Credit</i>	<i>Notes (ex. Gen Ed, Major Req.)</i>
EC201 (ECON201)	Principles of Economics I	3	ECON205	Prin. of Macroeconomics	3	MC-BSSD SU-SS
MA181 (MATH181)	Calculus I	4	MATH207	Calculus I	4	
MA182 (MATH182)	Calculus II	4	MATH208	Calculus II	4	
MA280 (MATH280)	Multivariable Calculus	4	MATH309	Calculus III	4	
MA282 (MATH282)	Differential Equations	3	MATH310	Differential Equations	4	
PH161 (PHYS161) PH262 (PHYS262) PH263 (PHYS263)	Mechanics and Heat Electricity and Magnetism Waves, Optics and Modern Physics	3 4 4	PHYS221 PHYS222	General Physics I General Physics II	4 4	3 Courses transfer as a block
CH101 (CHEM131)	Principles of Chemistry I	4	CHEM207 & 207L	General Chemistry I	4	
EE207 (ENEE207)	Electric Circuits	4	CPE221 & CPE222	Intro to Electrical Engineering and Lab	4	
EE140 (ENEE140) EE150 (ENEE150)	Intro to Programming Concepts for Engineers Intermediate Programming Concepts for Engineers	2 3	CIS211	Computer Lang. Concepts	4	
EE244 (ENEE244) EE245 (ENEE245)	Digital Logic Design Digital Circuits and Systems Lab	3 2	CPE305	Digital Logic Design and Lab	4	
ES100 (ENES100)	Intro to Engineering Design	3	ENGR101	Engineering I	3	
EN101 (ENGL101)	Intro College Writing	3	ENGL101	Written English I	3	EN101 and EN102 required for SU
EN102 (ENGL102 or EN109 (ENGL103)	Critical Reading, Writing and Research Critical Reading, Writing and Research at work	3	ENGL102	Writing and Literature	3	Core-Writing
HE (HLTH)	Health foundation	1		Elective	1	
Arts Dist.	Art Distribution	3	AR Core	Art Core	3	
Humanities	Humanities Distribution	3	HU Core	Humanities Core	3	
BSSD	Behavioral/Social Sci. Dist.	3	SS-Core	Social Sci. Core	3	
Total Credits		66			61	



Appendix B, Suggested Transfer Pathway
Montgomery College A.S. in General Engineering to
Shepherd University B.S. in Computer Engineering



Year One – Montgomery College

Fall Semester	Cr
CHEM131 Principles of Chemistry I	4
ENGL101 Intro to College Writing*	3
ENES100 Intro to Engineering Design	3
MATH181 Calculus I	4
ENEE140 Intro to Programming Concepts	2
Total Credits	16

Spring Semester	Cr
ENEE150 Intro to Programming Concepts	3
ENGL102 or ENGL103	3
MATH182 Calculus II	4
PHYS161 Mechanics and Heat	3
ECON201 Principles of Economics I	3
Total Credits	16

Year Two – Montgomery College

Fall Semester	Cr
ENEE244 Digital Design Logic	3
Humanities Distribution**	3
MATH280 Multivariable Calculus	4
PHYS262 Electricity and Magnetism	4
Behavioral and Social Science, not EC**	3
Total Credits	17

LI

Spring Semester	Cr
ENEE245 Digital Circuits and Systems Lab	2
ENEE207 Electric Circuits	4
MATH282 Differential Equations	3
HLTH Foundation	1
Art Distribution**	3
PHYS263 Waves, Optics and Modern Physics	4
Total Credits	17

Apply to graduate from Montgomery College with an Associate of Science in General Engineering

*ENGL101 and ENGL102 required for Shepherd University

** Choose one art, humanities or social science that also meets the global and cultural requirement

Year Three – Shepherd University

Fall Semester	Cr
MATH 254 Discrete Mathematics	3
CPE 234 Introduction to Networking	3
CPE 224 Electrical Circuits	3
CPE 225 Electrical Circuits Laboratory	1
Core curriculum class	3
GSPE 210 Fitness for Life	3
Total Credits	16

Spring Semester	Cr
MATH 321 Probability and Statistics	3
CPE 386 Computer Organization	4
CIS 390 Operating Systems	3
Core curriculum class	3
Core curriculum	3
Total Credits	16

Year Four – Shepherd University

Fall Semester	Cr
CPE 489 Engineering Capstone Project I	1
CPE 421 Computer Architecture	3
MATH 307 Introduction to Linear Algebra	3
Technology Elective	3
Core curriculum class	3
Total Credits	13

Spring Semester	Cr
CPE 490 Engineering Capstone Project II	2
CPE 433 Microprocessor System Design and Lab	4
ENGR 326 Linear Systems	3
Technology Elective	3
Core curriculum class	3
Total Credits	15

Contact:

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 Associate Professor of Engineering
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 (304)876-5368

Appendix C, Montgomery College Academic Advising Sheet

A.S. in General Engineering to B.S. in Computer Engineering

Name:	Date:	ID#	
Foundation Courses	COURSE	HRS	GRADE
Introduction to College Writing	ENGL101*	3	
English Foundation (ENGL102 or ENGL103)	ENGL 102	3	
Math Foundation, Calculus I	MATH181	4	
Health Foundation (1-credit HLTH class)	HLTH101	1	
Distribution Courses	COURSE	HRS	GRADE
Art Distribution**			
Humanities Distribution**			
Behavioral and Social Science Distribution, Principles of Econ I	ECON201	3	
Behavioral and Social Science Distribution, select non-EC**			
Natural Science Lab Distribution, Principles of Chemistry I	CHEM121	4	
Natural Science Lab Distribution, Electricity and Magnetism	PHYS262	4	
Program Requirements and Electives	COURSE	HRS	GRADE
Mechanics and Heat	PHYS161	3	
Introduction to Engineering Design	ENES100	3	
Calculus II	MATH182	4	
Multivariable Calculus	MATH280	4	
Differential Equations	MATH282	3	
ENEE or ENES Elective, Electric Circuits	ENEE207	4	
ENEE or ENES Elective, Digital Logic Design	ENEE244	3	
ENEE or ENES Elective, Intermediate Programming Concepts for Eng.	ENEE150	3	
ENEE or ENES Elective, Intro to Programming Concepts for Engineers	ENEE140	2	
Waves, Optics and Modern Physics	PHYS263	4	
Digital Circuits and Systems Lab	ENEE245	2	

Global & Cultural Perspectives Requirement:**

*ENGL101 and ENGL102 required for Shepherd University

** Choose one art, humanities or social science that also meets the global and cultural requirement

Contact:

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