ARTICULATION AGREEMENT

Baltimore City Community College

Associate of Science Degree Engineering Transfer and

Morgan State University

Bachelor of Science Degree in Electrical Engineering, Civil Engineering or Industrial Engineering

Entered into this 27th day of June, 2016

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Dr. David Wilson

President

Morgan State University

Dr. Gordon F. May

President

Baltimore City Community College

Dr. Gloria Gibson

Provost and Senior Vice President

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for Academic Affairs

Dr. Eugene Deloatch

Dean, School of Engineering

Chair, Civil Engineering

Dr. Craig Scott

Chair, Electrical Engineering

Dr. Tridip Bardhan Chair, Industrial Engineering

This agreement is effective with new Morgan admits beginning in the fall 2016

This agreement will remain in effect until fall 2018

ARTICULATION AGREEMENT

Baltimore City Community College, an agency of the state of Maryland (hereafter referred to as BCCC), and Morgan State University (hereafter referred to as MSU), a public state university in Baltimore, Maryland, agree to offer an articulated program leading to the award of a Bachelor of Science in Electrical Engineering, Civil Engineering or Industrial Engineering.

PURPOSE OF AGREEMENT

This agreement is entered into in the interests of our students. The general purpose of this agreement is to make clear the terms of this articulation agreement. This agreement will allow for the efficient transfer of students between campuses, including transfer credit, admissions and financial aid/scholarship. It will provide opportunities for students beyond the classroom, serving as a basis for student involvement and faculty interaction. It will set expectations for administrators, faculty, and staff at both institutions, and foster a working relationship between the parties. Finally, it will encourage students to continue their education for their personal and professional development.

ADMINISTRATIVE PRINCIPLES

The following general principles guide the operation of this Agreement:

- 1. The program is designed for graduates/transfers of the Associate of Science Engineering Transfer Program. A maximum of seventy (70) credit hours from BCCC or another community college will be allowed towards fulfillment of the minimum one hundred and twenty (120) credits required for baccalaureate completion.
- 2. In accordance with Code of Maryland Regulations, all courses meeting general education requirements at BCCC will transfer to MSU as general education. Other general education requirements will be met by using required or elective courses at MSU as noted in this agreement.
- 3. The maximum number of credits that will be accepted by MSU toward degree requirements from non-direct classroom instruction (including CLEP, AP, International Baccalaureate, and other select nationally-recognized standardized examination scores, and other four-year institutions) is ninety (90) credits. If the course is evaluated by BCCC and applied to the Associate of Applied Science transfer degree, the student must submit the score report to be evaluated by MSU and credit will be applied as determined by an MSU evaluation. It is possible that not all transferable credit accepted by MSU will be applicable to the degree.
- 4. Courses completed at another community college or four-year institution will count toward the total credits transferred into MSU. Official transcripts from all previously attended institutions will also be required.

- 5. Once the Associate of Science degree is completed and the student has been admitted to MSU, the student will be instructed to contact the appointed academic advisor before registering for classes.
- 6. While BCCC and MSU do not presently have a dual admissions program, should one be agreed to, this agreement will not preclude students from participation and students may apply for and receive the benefits of dual-admission.
- 7. Students may complete the MSU curriculum part-time or full-time, online or face-to-face, or in any combination thereof.
- 8. This articulation agreement becomes effective on the date set forth on the first page of this document. This agreement will be reviewed and re-signed every two (2) years.
- 9. BCCC will provide potential student directory information, as defined in the Family Education Rights and Privacy Act (FERPA), to MSU for matters of recruitment, marketing and data management. Educational records maintained by each institution are subject to FERPA and the regulations promulgated under it.
- 10. BCCC will permit MSU to conduct on-campus information sessions at locations and on dates that are mutually agreeable.
- 11. BCCC and MSU agree to monitor the performance of this agreement and to revise it as necessary.
- 12. The agreement may be terminated by either party after adequate written notice, defined as one calendar year, at which time appropriate measures will be put into place regarding the continued transfer of students.
- 13. The office of record for program articulation agreements at Morgan State University is the Transfer Center. The office of record at Baltimore City Community College is the Office of Academic Operations and Services.

For students following this agreement, the requirements listed below apply:

- 1. Students must maintain a 2.0 cumulative grade point average in order to transfer to MSU. Should students choose to transfer prior to completion of the associate's degree, they will be responsible for meeting MSU eligibility requirements.
- 2. ORNS 104 Freshman Orientation for Engineering majors (1 credit) is not required for transfer students who transfer with a minimum of twenty-four (24) credits from the sending institution. However, if the student transfers with less than twenty-four (24) from the sending institution, the orientation class must be taken at MSU. Moreover, the transfer student must complete a minimum of one hundred and twenty-seven (120) credit hours to earn a Bachelor of Science degree in Engineering.
- 3. Morgan State University does not guarantee the transferability of courses taken outside the guidelines within this articulated agreement.
- 4. In order to be eligible for admission, students must comply with all MSU admissions requirements, including posted deadlines and submission of appropriate documentation.
- 5. Should this articulation agreement concern a program with additional admissions requirements or prerequisite coursework, students must have met all standards prior to enrollment at MSU.
- 6. Students shall apply for admission to Morgan State University, indicating Civil Engineering, Electrical Engineering or Industrial Engineering as the intended major. Applications for admission can be obtained by contacting: the Office of Admission and Recruitment at (443) 885-3000 or http://www.morgan.edu/Admissions/Undergraduate_Admissions/Transfer_Applicants.html. All required application materials must be supplied by the deadline.
- 7. Students will automatically be nominated for scholarships for which they are eligible. *For priority scholarship consideration, students must complete their admission application by November 15th for fall admission.
- 8. Students shall contact the Transfer Coordinator for their major for an advisement appointment once they have been admitted to MSU. The required credit hours must be successfully completed before Morgan State University can grant the degree. Each student's last thirty (30) credit hours must be completed at MSU.

APPENDICES

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

- 1. Course-by-course articulations, including satisfaction of general education requirements at both Baltimore City Community College and Morgan State University.
- 2. Upper division requirements to be completed at Morgan State University.
- 3. An academic advising sheet showing requirements for completion of the degree at BCCC.

These appendices may be changed, by mutual agreement, after adequate notice, defined as one calendar year, without the procedural process review or revision of the entire articulation agreement.

APPENDIX I-A: COURSE ARTICULATIONS

Baltimore City Community College Associate of Science Degree Engineering Transfer Program and

Morgan State University – Bachelor of Science Degree Electrical Engineering, Civil Engineering or Industrial Engineering

Course by Course Equivalency (MSU Catalog 2015-2016; BCCC Catalog 2015-2016)

The following pages indicate the course-to-course equivalency, including General

Education, as agreed within the articulation agreements

BCCC Course	Credits	MSU Equivalent	BCCC Notes	MSU Notes
PRE 100	1	OREN 104	Decentities	MSU Moles
CHE 101	4	CHEM 101		Satisfies CHEM 110 -
EGN 101	3	EEGR 105		BP Category
ENG 101	3	ENGL 101		
MAT 140	4	MATH 241		
SP 101	3	*SPCH 101	Arts & Humanities	*Satisfies Speech proficiency and AH Category
CHE 102	4	Elective BP Category		Satisfies BP Category BIOL 101
CSC 108	3	EEGR 161 / CEGR107		Satisfies IM category
HLF XXX	1	PHEC XXX		Satisfies fivi category
MAT 141	4	MATH 242		
ENG 200 or ENG 205	3	Elective AH Category	Arts & Humanities	Satisfies AH category
EGN 102	3	CEGR 302		Satisfies elective for IE majors ^Non EE Elective – Electrical Engineering Majors Only
H 101 or H 151	3	HIST 101 or 105		Satisfies SB category
HLF XXX	1	Free Elective		
MAT 210	4	MATH 243		
PHY 203	5	PHYS 205		
ECO 201	3	ECON 211		Satisfies SB category
EGN 201	3	CEGR 302		Satisfies elective for IE majors ^Non EE Elective – Electrical Engineering Majors Only
MAT 211	4	MATH 340		
PHY 204	5	PHYS 206		
Total	64			The state of the s

^{*}Double-Counting of Courses

Subject to the specific requirements for the various majors, minors and certificates, students may use a course to satisfy identical course requirements in up to two of the following areas: 1) general education requirements; 2) requirements for the major; 3) requirements for the major; 4) requirements for the minor; 5) requirements for the certificate. The credits earned for the course count only once toward the total 120 credits (or more) needed for a degree or certificate program (2015 -2016 Academic Polices).

[^]EGN 102 + EGN 201 (6 credits) = CEGR 302 Dynamics (these two courses will count as one Non EE Elective for Electrical Engineering majors only)

APPENDIX II-A: UPPER DIVISION REQUIREMENTS Morgan State University (Catalog 2015-2016)

Electrical Engineering

All transfer students will be required to take a minimum of 30 credits of upper division coursework at MSU. A minimum total of 120 credits are required for the degree.

Completion of the Electrical Engineering degree program at MSU requires students to successfully complete the following course work:

Course Number	Course Title	Credit Hours	Explanation	
ENGL 102	English Composition II	3	Explanation	
PHIL 109	Intro to Logic	3		
*AH XXX	Arts and Humanities Elective	0	SP 101 from BCCC satisfies thi requirement	
HIST 350	Intro to African Diaspora	3	requirement	
HH XXX	Health and Healthful Living	3		
Electrical Engineerin	g Requirements:	1 2		
EEGR 202	Electric Circuits	4		
EEGR 203	Intro to Electrical Lab	1		
EEGR 221	Signals and Systems	4		
EEGR 215	Electronic Materials and Devices	4		
EEGR 211	Introduction to Digital Logic	3		
EEGR 305	Electromagnetic Theory & Applications	4		
EEGR 322	Discrete Systems	3		
EEGR 317	Electronic Circuits	4		
MATH 331	Applied Probability & Statistics	3		
EEGR 390	Principles of Design	3		
EEGR 490	Senior Design Project	2		
EEGR 400	Intro to Professional Practice	1		
EEGR 491	Senior Design Project II	2		
Electrical Engineering	g Electives			
(4) EEGR 4XX	ECE Elective	12		
XXX	Approved Non EE Elective as general education by one institution shall tran	3		

*Courses that are defined as general education by one institution shall transfer as general education even if the receiving institution does not have that specific course or has not designated that course as general education (MHEC Student Transfer Policy)

All students, including transfer students, are required to pass all Proficiency and Senior Level Comprehensive Departmental Examinations to be eligible for graduation.

Total credits to be taken at MSU

6:

APPENDIX II-B: UPPER DIVISION REQUIREMENTS Morgan State University (Catalog 2015-2016)

Civil Engineering

All transfer students will be required to take a minimum of 30 credits of upper division coursework at MSU. A minimum total of 120 credits are required for the degree.

Completion of the Civil Engineering degree program at MSU requires students to successfully complete the following course work:

Course Number	Course Title	Credit Hours	Explanation
ENGL 102	English Composition II	3	Explanation
*PHIL 220	Ethics and Values	0	SP 101 from BCCC satisfies this requirement
HIST 350	Intro to African Diaspora	3	requirement
HEED 103	Health Science	3	
PHIL 109	Introduction to Logic	3	
Civil Engineering Re	equirements:		
CEGR 106	Intro to Civil Engineering	1	
CEGR 110	Geospatial Technologies in CE	2	
CEGR 212	Mechanics of Materials and Lab	3	
CEGR 214	Fluid Mechanics and Lab	3	
CEGR 324	Structural Analysis I and Lab	3	
CEGR 325	Geotechnical Engineering & Lab	3	
CEGR 307	Computer Methods & Prog for CE	2	
CEGR 416	Transportation Engineering	3	
MATH 331 or	Applied Probability & Statistics	3	
IEGR 251	or Probability & Stats for Eng I	3	
CEGR 436	Elementary Structural Design	3	
CEGR 332	Hydraulic/Water Resources Engineering	3	
CEGR 338	Environmental Engineering & Lab	3	
CEGR 492	Senior Review & Project Proposal	2	
CEGR 493	Senior Project	1	
CEGR 400	Project Management, Finance & Entrepreneurship	2	
Civil Engineering Ele			
(3) CEGR XXX	Technical Elective	9	(=1) - 3/1 - 4(1) - 3/2
XEGR XXX	Multidisciplinary Engineering Elective	3	
	s general education by one institution shall trans course or has not designated that course as gene unsfer students, are required to pass all Profice le for graduation		
Total credits to be tak	on at MCII	61	

APPENDIX II-C: UPPER DIVISION REQUIREMENTS Morgan State University (Catalog 2015-2016)

Industrial Engineering

All transfer students will be required to take a minimum of 30 credits of upper division coursework at MSU. A minimum total of 120 credits are required for the degree.

Completion of the Industrial degree program at MSU requires students to successfully complete the following course work:

Course Number	Course Title	Credit Hours	Explanation
ENGL 102	English Composition II	3	Explanation
PHIL 109	Intro to Logic	3	
*COMM 203	Media Literacy in Diverse World	0	SP 101 from BCCC satisfies this requirement
HIST 350	Intro to African Diaspora	3	104unomene
HEED 103	Health Science	3	
Industrial Engineering	Requirements:		
IEGR 204	Intro to IE and Computers	2	
IEGR 251	Probability & Statistics for Eng I	3	
IEGR 304+IEGR304L	Intro to Prog. for IE	3	
IEGR 350	Engineering Economy	3	
IEGR 305	Thermodynamics	3	
IEGR 309	Materials Engineering	3	
IEGR 317	Solid Modeling and Design I	3	1
IEGR 351	Probability & Statistics for Eng II	3	* *************************************
IEGR 360+IEGR360L	Ergo & Workplace Design	3	
IEGR 361	Intro to Linear Programming	3	
IEGR 363+IEGR363L	Manufacturing Process	3	
IEGR 461	Oper Research, Deterministic Models	3	
IEGR 410	Simulation of Industrial Systems	3	
IEGR 367	Production & Operations Mgmt	3	
IEGR 451	Design of Experiment & QC	3	
IEGR 480	Product Design	3	
IEGR 496	Senior Design I	1	
IEGR 467	Prod Anal & Manufacturing Sys	4	
IEGR 498	Senior Design II	2	
Industrial Engineering	Electives	-	
(3) XXX XXX	IEGR Concentration Elective	9	
ious not have that specific co	general education by one institution shall tran burse or has not designated that course as gene sfer students, are required to pass all Profit	sfer as general educati	Ctudont Tour C. D. 1:)
Total credits to be take			

APPENDIX III-A: ACADEMIC ADVISING SHEET Baltimore City Community College (Catalog Year 2015-2016)

Thank you for your interest in the articulated academic plan for the School of Engineering. Bachelor of Science. Successful completion of this program will ensure a smooth transition to Morgan State University's Bachelors of Science degree in Electrical Engineering, Civil Engineering *or* Industrial Engineering

PRE 100 Preparation for Academic Achievement CHE 101 General Chemistry I EGN 101 Engineering Graphics ENG 101 English Writing I MAT 140 Calculus I SP 101 Speech Communication CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics EGN 201 Dynamics		Completed	Grade Received	Grade Required
EGN 101 Engineering Graphics ENG 101 English Writing I MAT 140 Calculus I SP 101 Speech Communication CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	1			D or better
ENG 101 English Writing I MAT 140 Calculus I SP 101 Speech Communication CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	4			C or better
MAT 140 Calculus I SP 101 Speech Communication CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			C or better
SP 101 Speech Communication CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			C or better
CHE 102 General Chemistry II CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	4			C or better
CSC 108 Programming in C (2) HLF XXX Personal and Community Health MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3	1.00		C or better
PHY 203 General Physics C2) HLF XXX Personal and Community Health Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature Statics H 101 or H 151 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	4			C or better
MAT 141 Calculus II ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			C or better
ENG 200 or ENG 205 Intro to Literature or The Women in Literature EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	2			D or better
EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	4			C or better
EGN 102 Statics H 101 or H 151 History American Civilization or World History I MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			
MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			O or better
MAT 210 Advanced Calculus PHY 203 General Physics ECO 201 The American Economy I: Macroeconomics	3			C or better
ECO 201 The American Economy I: Macroeconomics	4			C or better
ECO 201 The American Economy I: Macroeconomics	5			C or better
	3			or better
	3			C or better
MAT 211 Differential Equations				C or better
PHY 204 General Physics II	4			C or better
Total	5 64	, 1967 14 50 William (1967 14 14 14 14 14 14 14 14 14 14 14 14 14		or better

Application Deadlines:

To be admitted you will need to have the following credits and grade point average (GPA) requirements:

Fall Semester: Spring Semester:

April 1 December 1

- 0-11 credits, a 2.0 GPA and meet high school requirements
- 12-23 credits, a 2.0 GPA and meet SAT requirements
- 24 or more credits, a 2.0 GPA

Application fee:

\$35 Fee

For more information:

Contact Office of Admission and Recruitment at 443-885-300 or visit online at http://www.morgan.edu.