# ARTICULATION AGREEMENT BETWEEN METROPOLITAN COMMUNITY COLLEGE AND THE UNIVERSITY OF MISSOURI

#### Associate in Engineering to a Bachelor of Science in Electrical Engineering

#### **OVERVIEW:**

This formal program articulation agreement is made and entered into by the University of Missouri, hereinafter referred to as MU, and the Junior College District of Metropolitan Kansas City, Missouri, hereinafter referred to as MCC. By this agreement MCC and MU express a shared commitment to increasing opportunities for student access to and success in higher education. By clarifying transfer policies and procedures which assure articulation between programs, the institutions seek to assist students in making a seamless transfer from the associate to the baccalaureate degree.

#### **PURPOSE:**

This agreement provides students who have earned an **Associate in Engineering** at MCC the opportunity to complete a **Bachelor of Science in Electrical Engineering** at MU. Any MCC student who has earned an Associate in Engineering is guaranteed that MU will accept designated freshman and sophomore credits and will apply such to a Bachelor of Science in Electrical Engineering in a manner consistent with the treatment of native students.

#### **CONDITIONS OF TRANSFER:**

#### Section I: Admissions and Matriculation

MCC students maintaining continuous enrollment under this agreement will be afforded the same treatment and protection as MU native students enrolled under a specific catalog. Criteria for admissions to the Bachelor of Science in Electrical Engineering will be based on the catalog year the student enters MU.

Criteria for acceptance into MU for transfer students is based upon their past academic performance and the admission requirements for the Bachelor of Science in Electrical Engineering degree.

MCC, upon request of students, will provide verification of completed courses to MU through its Admissions Office.

The transcripts of students transferring from MCC will be evaluated by the Admissions Office.

Transfer students from MCC will have access to financial aid and student services on the same basis as native students.

Minimum grade standards for academic progress and graduation from MCC will be subject to no further review by MU. Similarly, minimum grade standards for admission, academic progress, and graduation from Electrical Engineering at MU will not be subject to review by MCC. MU will apply the same

academic progress and graduation standards to MCC transfer students as those applicable to native students at MU.

#### Section II: Transfer of Credit and Admission to Degree Program

While there is no maximum number of credit hours that can be transferred by a student from MCC to MU, 30 of the last 36 hours of credit must be completed with MU authored courses.

Of the courses completed through this articulation agreement, 59 will transfer to MU toward the Bachelor of Science in Electrical Engineering. Four additional hours taken at MCC are required to complete the Associate in Engineering degree.

Transfer students from MCC who have completed the Associate in Engineering, upon acceptance to the Bachelor of Science in Electrical Engineering program at MU, will have junior standing at MU.

#### **Section III: Program Plan**

Students falling under this program articulation agreement will be responsible for successful completion of the following requirements.

## **Metropolitan Community College**

(Other course options may be available with consultation with an MU Electrical Engineering advisor.)

# **Associate in Engineering**

Semester 1	<u>Credits</u>	Semester 2	<u>Credits</u>
MATH 180: Analy Geom & Calc	5	MATH 190: Analy Geom & Calc II	5
CHEM 111: Gen College Chem I	5	PHYS 220: Engineering Physics I	5
HIST 120: US History to 1865		ENGL 102: Comp & Rdg II	3
or HIST 121: US History Since 1865	3	SPDR 100: Fund of Speech	3
ENGL 101: Comp & Rdg I	3		
ENGR 101: Intro to the Profession	1		
Total	17	Total	16

Semester 3	<u>Credits</u>	Semester 4	Credits
MATH 210: Analy Geom & Calc III	5	MATH 230: Diff Equations	3
PHYS 221: Engineering Physics II	5	ENGR 104: Program for Engr & Sci	3
ECON 210: Macroeconomics	3	*ENGR 113: Engr Dsgn Microcomp App	3
ENGR 223: Themodynamics & Heat Transfer	4	ENGR 229: Statics	3
		ENGR 233: Circuit Analysis I	4
Total	17	Total	16
		TOTAL CREDITS	66

<sup>\*</sup> student may choose to substitute ETEC 152, BIOL 101, or CHEM 112, but this will require two extra credit hours that will not apply to the BS Electrical Engineering degree.

Total credits for Associate in Engineering at Metropolitan Community College: 66 (59 will apply toward the BS EE degree)

#### **University of Missouri**

### **Bachelor of Science in Electrical Engineering**

Semester 5	<u>Credits</u>	Semester 5	<u>Credits</u>
*ECE 1210: Intro to Logic Systems	3	ECE 3210: Microprocessor Engineering	4
ECE 3810: Circuit Theory II	4	ECE 3410: Electronic Circuits and Signals	4
CMP SC 1050: Alg. Design and Prog. I	3	ECE 3830: Trans. Anal. of Sig. and Lin. Sys.	3
STAT 4710: Intro to Mathematical Statistics	3	**Humanities/fine arts	3
**Social science	3		
Total	16	Total	14

Semester 7	Credits	Semester 8	Credits
ECE 3510: Electromagnetic Fields	3	ECE 3110: ECE Projects Lab	3
ECE or CS 3000+, or 2000+ Math/Sci/Engr	3	ECE 3610: Semiconductors and Devices	3
ECE 4XXX: Tech Elective Course	3	ECE or CS 3000+, or 2000+ Math/Sci/Engr	3
ECE 4XXX: Senior Lecture/Lab Course	4	ECE 4XXX: Tech Elective Course	3
Total	13	Total	12

Semester 9	Credits
ECE 4970: Senior Capstone Design I (WI)	3
ECE or CS 3000+, or 2000+ Math/Sci/Engr	3
ECE or CS 3000+, or 2000+ Math/Sci/Engr	3
ECE 4XXX: Tech Elective Course	3
**Humanities/fine arts	3
Total	15
TOTAL CREDITS	70

<sup>\*</sup>ETEC 130, Digital Electronics, which is equivalent to ECE 1210 may be taken at MCC.

**Total Credits required for Bachelor of Science in Electrical Engineering: 126 Additional Hours required for Associate in Engineering Degree: 10** 

**Total Credits to graduate: 136** 

<sup>\*\*</sup> One humanities/fine arts or social science course must be 2000-level or above and one must be writing intensive. Writing intensive courses must be taken at MU.

#### TERMS OF AGREEMENT:

This agreement is made and entered into in the academic year 2011-2012 and remains in force unless changed in writing by mutual agreement of both parties. The agreement may be amended at any time with the approval of both parties and is subject to regular review to assure currency with the respective degree requirements. Should either party desire to discontinue this agreement, advance notification of two years will be required.

#### **SIGNATURES:**

The Junior College District of Metropolitan Kansas City, Missouri and the University of Missouri enter into this program articulation agreement leading from the Associate in Engineering to the Bachelor of Science in Electrical Engineering degree by the affixing of signatures of the chief executive officers of both institutions.

James E. Thompson, Ph.D. Dean, College of Engineering University of Missouri	Date
Brady J. Deaton, Ph.D.	 Date
Chancellor University of Missouri	Date
Mark S. James President Metropolitan Community College	Date