ARTICULATION AGREEMENT
BETWEEN
CROWDER COLLEGE
AND THE
UNIVERSITY OF MISSOURI

OVERVIEW:

This formal program articulation agreement is made and entered into by the University of Missouri, hereinafter referred to as MU, and Crowder College hereinafter referred to as Crowder. By this agreement Crowder 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 of Science in Pre-Engineering at Crowder the opportunity to complete a Bachelor of Science in Mechanical Engineering at MU. Any Crowder student who has earned an Associate of Science in Pre-Engineering is guaranteed that MU will accept designated freshman and sophomore credits and will apply such to a Bachelor of Science in Mechanical Engineering in a manner consistent with the treatment of native students.

CONDITIONS OF TRANSFER:

Section I: Admissions and Matriculation

Crowder 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 Mechanical 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 Mechanical Engineering degree.

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

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

Transfer students from Crowder 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 Crowder will be subject to no further review by MU. Similarly, minimum grade standards for admission, academic progress, and graduation from Mechanical Engineering at MU will not be subject to review by Crowder. MU

will apply the same academic progress and graduation standards to Crowder 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 Crowder 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, 54 hours will transfer to MU toward the Bachelor of Science in Mechanical Engineering. 14 additional hours taken at Crowder are required to complete the Associate of Science in Pre-Engineering degree, for a total of 65 hours completed at Crowder. The additional 3 hours described in this agreement to be taken at Crowder in the Humanities area are required to allow a transfer student to graduate in 8 semesters without the need of taking a credit overload in a given semester.

Section III: Program Plan

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

Crowder College
Associate in Science

Crowder Course	***Credits***	***MU Equivalent***	***Credits***
Semester 1			
MATH 150: Calculus I, part I	2	MATH 1500A	2
CHEM 111: General Chemistry I	5	CHEM 1310 & 1320	5
POSC 103: National, State, Local Govt.		POL SCI 1100	
or HIS 106: United States History I	3	or HIST 1100	3
*ENGL 101: English Composition	3	ENGLSH COMP1	3
*COLL 101: College Orientation	1	MISC ORIEN	1
Humanities (from list 1)	3	Humanity/Fine Arts	3
Total	**17**	**Total**	**17**
Semester 2			
MATH 160: Calculus I, part II	3	MATH 1500b	3
ECON 201: Principles of Economics I		ECON 1014	
or ECON 202: Principles of Economics II	3	OR ECON 1015	3
ENGL 102: Advanced English Composition*	3	ENGLSH 1000	3
Humanities (from list 1 or list 2)	3	Humanity/Fine Art	3
**Humanities (from list 1 or list 2)	3	Humanity/Fine Art	3
*Drft 101 or 115	3	ENGR 1100	2
Total	**18**		**17**
Semester 3			
MATH 201: Calculus II	5	MATH 1700	5
PHYS 190: General Physics I	5	PHYS 2750	5
*COMP 111: Intro to Computer Science	4	CS 1040	3
*Technical Elective	3	MISC ELEC	3
Total	**17**	**Total**	**16**
Semester 4			
*MATH 202: Calculus III	5	MATH 2300	3
MATH 210: Differential Equations	3	MATH 4100	3
PHYS 210: General Physics II	5	PHYS 2760	5
PHYS 250: Statics	3	ENGR 1200	3
Total	**16**	**Total**	**14**
TOTAL CREDITS	**68**		

*ENGL 101, COLL 101, CMP 111, and the technical elective are required for the AS degree but do not apply toward the BS ME at MU; only 2 hours of DRFT 101/115 and 3 hours of MATH 202 apply toward the BS ME degree.

**Course is not required for the AS degree but it is recommended to take this course at CC to reduce the course requirements at MU for completion of the BS ME degree.

List 1:

ART	101
ENGL	109, 120, 125
HUM	102, 103
MUSC	101
PHIL	101, 110, 121, 201, 202
TA	205

List 2:

PHIL	110, 121

Technical Elective options include:

CHEM	112, 201
DRFT	101, 115
Alternative Energy Courses	

Total credits for Associate of Science in Pre-Engineering at Crowder College: 65
Additional credits at Crowder College: 3
Total credits at Crowder College: 68 (54 credits will apply toward the BS ME degree at MU –

University of Missouri
Bachelor of Science in Mechanical Engineering

Semester 5	***Credits***	***Semester 6***	***Credits***
MAE 1000 Intro to Mechanical Engineering	1	MAE 3100 Comput Methods for Engr Dsgn	4
MAE 2100 Computer Programming	2	MAE 3200 Engineering Materials (WI)	4
ENGR 2200 Intermed Strength of Materials	3	MAE 3400 Fluid Mechanics	3
ENGR 2300 Engineering Thermodynamics	3	MAE 3900 Mechanical Design I	3
MAE 2600 Dynamics	3	Engr 1110 Solid Modeling for Engr Design	1
STAT 4710 Intro to Mathematical Statistics or IMSE 2110 Prob & Stat for Engineers	3	ENGR 2100 Circuit Theory for Engineers	3
Soc/Beh (WI, 2000+)	3		
Total	**18**	**Total**	**18**

Semester 7	***Credits***	***Semester 8***	***Credits***
MAE 3600 Dynamic Systems and Control	3	MAE 4800 Thermal and Fluid Science Lab	3
MAE 3800 Instrum & Measurements Lab	3	MAE 4980 Senior Capstone Design	3
MAE 4300 Heat Transfer	3	Tech Elect	3
MAE 4500 Manufacturing Methods	3	MAE Elect	3
MAE 4900 Mechanical Design II	3	MAE Elect	3
IMSE 2710 Engineering Economic Analysis	3	MAE elect	3
Total	**18**	**Total**	**18**
		TOTAL CREDITS	**72**

Total Credits required for Bachelor of Science in Mechanical Engineering: 126
Additional Hours required for Associate of Science in Pre-Engineering: 14

Total Credits to graduate: 140

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:
Crowder College 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. Date
Dean, College of Engineering
University of Missouri

_____ _____
Brady J. Deaton, Ph.D. Date
Chancellor
University of Missouri

_____ _____
Alan D. Marble, Ph.D. Date
President
Crowder College