



STATEMENT OF UNDERSTANDING BETWEEN THE UNIVERSITY OF SOUTHERN INDIANA AND IVY TECH COMMUNITY COLLEGE

Effective Date: August 16, 2017

Statement of Intent: The purpose of this agreement is to facilitate the transfer of students' course credit from Ivy Tech Community College to the University of Southern Indiana Department of Engineering baccalaureate degree programs, and to provide a specific, course-by-course transfer guide for use by students and advisors. This agreement confirms that the relevant credit hours earned by students who complete the graduation requirements for an Associate of Science degree program at Ivy Tech Community College will be accepted into and serve to fulfill all lower division requirements for an engineering degree program at USI. Table 1 lists the courses that directly transfer from Ivy Tech to the following USI Department of Engineering degree programs:

- BS Engineering
BS Mechanical Engineering
BS Manufacturing Engineering
BS Electrical Engineering (anticipated Fall 2018)

Principles Upon Which Articulation is Based: This agreement, which encompasses the degree granting institutions of Ivy Tech Community College and the University of Southern Indiana, provides a written record of a continuing relationship centered on a mutually beneficial commitment to serving students.

[Signature of Dr. Ron Rochon]

Dr. Ron Rochon, Provost
University of Southern Indiana

Steve Tincher
Steve Tincher (Nov 8, 2017)

Dr. Steve Tincher, Sr. VP and Provost
Ivy Tech Community College

[Signature of Dr. Zane Mitchell]

Dr. Zane Mitchell, Dean
Pott College of Science, Engineering, and Education

[Signature of Dr. Russ Baker]

Dr. Russ Baker, VP Academic Affairs
Ivy Tech Community College

[Signature of Dr. Paul Kuban]

Dr. Paul Kuban, Chair
Department of Engineering

Mahesh Sah
MaheshSah (Nov 8, 2017)

Dr. Maheshwar Sah, Chair, Pre-Engineering
Ivy Tech Community College

Table 1. Transfer courses for USI BSE, BSME, BSMFE, BSEE

University of Southern Indiana Courses				Ivy Tech Courses				
Prefix	Num.	Name	cr.		Prefix	Num.	Name	cr.
ENGR	108	Systems Engr. and Fr. Design	2	=	ENGR	190	Introduction to Engineering Design	2
ENGR	1-xx	Engineering Elective	3	=	ENGR	140	Engineering Software Tools I (C++)	3
UNIV	101	First Year Experience	1	=	IVYT	1XX	Student Success Elective	1
MATH	230	Calculus I	4	=	MATH	211	Calculus I	4
CHEM	261	General Chemistry I	4	=	CHEM	105	General Chemistry I	5
CHEM	1-xx	MATH/SCI elective	1				(extra hour from CHEM105 above)	
ENG	101	Rhetoric and Composition I	3	=	ENGL	111	English Composition I	3
MATH	235	Calculus II	4	=	MATH	212	Calculus II	4
PHYS	205	Interm. Physics I , Lab	5	=	PHYS	220	Mechanics	5
ENGR	107	Fundamentals of Engineering	3	=	ENGR	160	Engineering Software Tools II (Matlab)	3
ENGR	121	Drafting and Annotation	1	=	ENGR	116	Geometric Modeling for Visualization	2
ME	121	Solid Modeling	1				(topics covered in ENGR116)	
MATH	335	Calculus III	4	=	MATH	261	Multivariate Calculus	4
PHYS	206	Interm. Physics II , Lab	5	=	PHYS	221	Heat, Electricity, and Optics	5
ECON	208/ 209	Principles of Microeconomics Principles of Macroeconomics	3	=	ECON	201/ 202	Principle of Macroecon./ Microecon. (Social/Behavioral Elective)	3
ENGR	235	Statics	3	=	ENGR	260	Vector Mechanics - Statics	3
CMST	101	Intro. to Public Speaking	3	=	COMM	101	Fundamentals of Public Speaking	3
ENGR	2-xx	Engineering Elective	1		ENGR	279	Capstone Course	1
MATH	366	Differential Equations	3	=	MATH	264	Differential Equations	3
PHIL	201	Introduction to Ethics	3	=	PHIL	102	Introduction to Ethics (Humanistic and Artistic elective)	3
ECE	255	Electric Circuits	4	=	ENGR	251	Electrical Circuits I	4
		Total transferred into USI	61				Total for AS Degree	61
Additional Transfer Courses (ENGL112 highly recommended, ENGR261 can substitute for ENGR251 above)								
ENG	201	Rhetoric and Composition II	3	=	ENGL	112	English Composition II	3
ME	225	Thermodynamics	3	=	ENGR	200	Thermodynamics	3
ENGR	275	Dynamics	3	=	ENGR	261	Dynamics	3
ECE	345	Advanced Electrical Circuits	3	=	ENGR	252	Electrical Circuits 2	4
ENGR	3-xx	Engineering Elective	1				(extra hour from ENGR252 above)	

Note:

If students take another transfer cluster elective, the requirements of Ivy Tech AS can be satisfied with 60 credit hours.

Table 2. USI Engineering BSE Courses Year 3 and 4

Course ID	Course Name	Hours
ENG201	Rhetoric and Composition II	3
ENGR291	Experimental Design & Technical Writing	2
ME225	Thermodynamics	3
ENGR275	Dynamics	3
ENGR305	Engineering Statistics	3
ENGR355	Strength of Materials	4
ENGR335	Engineering Economics	3
ENGR375	Fluid Mechanics	3
ENGR491	Senior Design	3
Various	MATH/SCIENCE Elective	3
Various	Engineering Electives	30
	Total USI Hours	60

Note: This table assumes ENGR251 was taken at Ivy Tech.

Table 3. USI Engineering BSME Courses Year 3 and 4

Course ID	Course Name	Hours
ENG201	Rhetoric and Composition II	3
ENGR291	Experimental Design & Technical Writing	2
Various	MATH Intensive Elective	3
Various	SCIENCE Elective	3
ENGR275	Dynamics	3
ME225	Thermodynamics	3
ENGR305	Engineering Statistics	3
ENGR355	Strength of Materials	4
ENGR362	Manufacturing	3
ENGR375	Fluid Mechanics	3
ME366	Dynamics of Machinery	3
ME364	Materials Science	3
ME365	Modeling Dynamic Systems	3
ENGR471	Engineering Design and Analysis	3
ME463	Heat Transfer	3
Various	Engineering Electives	4
Various	Design Electives	6
Various	ME Elective	3
ENGR491	Senior Design	3
	Total USI Hours	61

Note: This table assumes ENGR251 was taken at Ivy Tech.

Table 4. USI Engineering BSMFE Courses Year 3 and 4

Course ID	Course Name	Hours
ENG201	Rhetoric and Composition II	3
ENGR291	Experimental Design & Technical Writing	2
CHEM262	General Chemistry 2	4
ME225	Thermodynamics	3
ENGR275	Dynamics	3
ENGR305	Engineering Statistics	3
ENGR355	Strength of Materials	4
ENGR362	Manufacturing	3
ENGR375	Fluid Mechanics	3
ME366	Dynamics of Machinery	3
ME364	Materials Science	3
ENGR335	Engineering Economics	3
TECH367	Advanced Manufacturing	3
ENGR382	SCADA Systems Design	3
ME466	Machine Design	3
IME331	Intro to Statistical Quality Control	3
IME412	Production Control	3
IME414	Process and Facilities Design	3
IME422	Automated Manufacturing	3
Various	Engineering Electives	1
ENGR491	Senior Design	3
	Total USI Hours	62

Note: This table assumes ENGR251 was taken at Ivy Tech.

Table 5. USI Engineering BSEE Courses Year 3 and 4

Course ID	Course Name	Hours
ENG201	Rhetoric and Composition	3
ENGR291	Experimental Design & Technical Writing	2
ECE217	Fundamentals of Computer Programming	1
ECE241	Digital Logic Design	3
ECE343	Electronic Devices	4
ENGR305	Engineering Statistics	3
ECE345	Advanced Electrical Circuits	3
ECE347	Microcomputer Engineering	3
ECE349	Electrical Machines	4
ECE445	Signals and Systems	3
ECE311	Electromagnetic Fields	3
ENGR335	Engineering Economics	3
MATH362	Linear Algebra	3
ECE471	Electrical Systems Integration	3
Various	ECE Electives	18
ENGR491	Senior Design	3
	Total USI Hours	59

Note: This assumes ENGR251 was taken at Ivy Tech