Recommended Plan of Study
Civil Engineering BSCE 2+2 Dual-Enrollment Option
CIVIL ENGINEERING SAMPLE EIGHT SEMESTER PLAN OF STUDY

The following Plan of Study shows on potential list of courses that satisfies all requirements for a student pursuing the Engineering Science / Civil Engineering AS degree at Ivy Tech Community College and the Civil Engineering BSCE degree at Purdue – West Lafayette. Individual plans of study may vary.

Ivy Tech Community College	*Semester 1*			*Semester 2*			
	MA 211	Calculus I	4	MA 212	Calculus II		4
	CHM 105	Chemistry I	5	CHM 106	Chemistry II		5
	ENGL 111	English Composition	3	COM 101	Communication		3
	ENGR 190	Intro Engineering Design	2	ENGR 160	Engineering Software Tools		3
	Gen Ed	Social Science or Humanity	3	PHYS 220	Mechanics		5
		Total	**17**		**Total**		**20**
	Semester 3			*Semester 4*			
	MA 261	Multivariate Calculus[1]	4	MA 264	Differential Equations[1]		4
	PHYS 221	Heat, Electricity, Optics	3	ENGR 200	Thermodynamics[1]		3
	ENGR 260	Vector Mechanics: Statics[1]	3	ENGR 261	Vector Mechanics: Dynamics[1]		3
	BIOL 121	General Biology I	4	ENGR 116	Geometric Modeling Vis		2
	Gen Ed	Core B/SS course	3	Gen Ed	Core HUM course		3
				STAT 350	Statistics[2]		3
		Total	**17**		**Total**		**18**
Purdue University – West Lafayette	*Semester 5*			*Semester 6*			
	MA 26500	Linear Algebra	3	CE 33100	Engr Materials II		3
	CE 20300	Princ & Pract Geomtics	4	CE 34000	Hydraulics		3
	CE 23100	Engr Materials I	3	CE 34300	Elem Hydraulics Lab		1
	CE 27000	Intro Strctrl Mchncs	4	CE 39201	Tech Comm in CE		2
	CE 29202	Contemporary Issues In CE	2		Technical Elective 1		3
		Core STS course	3		Technical Elective 2		3
					Technical Elective 3		3
		Total	**19**		**Total**		**18**
	Semester 7			*Semester 8*			
	CE 39800	Intro CE Systems Dsgn	3	CE 49800	C E Design Project		3
		Technical Elective 4	3		Technical Elective 8		3
		Technical Elective 5	3		Technical Elective 9		3
		Technical Elective 6	3		Technical Elective 10		3
		Technical Elective 7	3		General Education Elective		3
		General Education Elective	3				
		Total	**18**		**Total**		**15**

[1] – Noted courses are designated as meeting the Learning Outcomes of *Civil Engineering* degree programs and are not deemed equivalent to Purdue University courses and will not transfer as such. These courses should be taught by faculty at ITCC with a PhD in an appropriate discipline. As part of this Articulation Agreement Purdue University faculty will collaborate with ITCC faculty to transform these courses to being designated as equivalent.
[2] – STAT 350 is to be taken online through Purdue University.

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Recommended Plan of Study
Civil Engineering BSCE 2+2 Dual-Enrollment Option
CIVIL ENGINEERING: COURSE-BY-COURSE TRANSFER RELATIONSHIP

	Purdue University Courses			Ivy Tech Community College Courses			
	Number	**Name**	**Cr**	**Number**	**Name**	**Cr**	**Notes**
Courses required for Purdue BSCE program	CHM 11500	General Chemistry	4	CHM 105	General Chemistry I	5	PTD
	CHM 1xxxx		1				
	CHM 11600	General Chemistry	4	CHM 106	General Chemistry II	5	PTD
	CHM 1xxxx		1				
	COM 11400	Fundament Of Speech	3	COM 101	Fund of Public Speaking	3	PTD
	ENGL 10100	English Composition I	3	ENGL 111	English Composition	3	PTD
	CGT 16400	Graphics For CE &Const	2	ENGR 116	Geom Model & Vis	2	
	ENGR 13100	Trans Ideas To Innovation I	2	ENGR 190	Intro Engr Design	2	PTD
	ENGR 13200	Trans Ideas To Innovation II	2	ENGR 160	Engr Software Tools	3	PTD
	ENGR 1xxxx		1				
	MA 16100	Pl Anly Geo Calc I	5	MATH 211	Calculus I	4	PTD, CTL
	MA 16200	Pl Anly Geo Calc II	5	MATH 212	Calculus II	4	PTD, CTL
	MA 26100	Multivariate Calculus	4	MATH 261	Multivariate Calculus	4	
	MA 26600	Ordinary Differ Equatn	3	MATH 264	Differential Equations	3	
	ME 20000	Thermodynamics	3	ENGR 200	Thermodynamics	3	
	PHYS 17200	Modern Mechanics	4	PHYS 220	Mechanics	5	PTD, CTL
	PHYS 2xxxx		1				
	PHYS 24100	Electricity Optics	3	PHYS 221	Heat, Electricity, Optics	5	PTD, CTL
	PHYS 25200	Electr Optics Lab	1				
	PHYS 2xxxx		1				
	CE 29700	Basic Mech I Statics	3	ENGR 260	Vector Mechanics	3	
	CE 29800	Basic Mech II Dynamics	3	ENGR 261	Dynamics	3	
	BIOL 11000	Fundamentals Biol I	4	BIOL 121	General Biology I	4	PTD
	STAT 35000	Intro To Statistics	3		Take Online from PU	3	

PTD=Purdue Transfer Database; CTL = Indiana Core Transfer Library
Additionally, many courses in the humanities and social sciences are listed in the Indiana Core Transfer Library and can transfer from Ivy Tech Community College to satisfy part of the General Education requirement of the BSCE degree.

Note: Purdue requires 32 credit hours at the 30000 level or higher be taken at Purdue.

Notes:

1. ENGL 111 transfers in as ENGL 10100 which satisfies English composition for engineering, but does not satisfy the WC foundational core.
2. MATH 261, MATH 264, ENGR 200, ENGR 260, and ENGR 261 are designated as meeting program Learning Outcomes and may transfer only within the constraints stipulated by this Articulation Agreement.
3. STAT 35000 is to be taken online from Purdue University.

ENVIRONMENTAL & ECOLOGICAL ENGINEERING: SAMPLE SEMESTER STUDY PLAN

The following Plan of Study shows one *potential* list of courses that satisfies all requirements for a student pursuing the Engineering Science / Environmental Engineering AS degree at Vincennes and the Environmental and Ecological Engineering BS degree at Purdue-West Lafayette. Individual plans of study may vary.

Ivy Tech Community College

Semester 1			*Semester 2*		
ENGR 190	Intro Engineering Design	2	ENGR 160	Engin. Software Tools [2]	3
MA 211	Calculus I	4	MA 212	Calculus II	4
CHM 105	Chemistry I [4]	5	CHM 106	Chemistry II [4]	5
ENGL 111	English Composition	3	PHYS 220	Mechanics [4]	5
Soc/Hum	General Education	3	COM 101	Communication (3)	3
	TOTAL	**17**		**TOTAL**	**20**

Semester 3			*Semester 4*		
MA 261	Multivariate Calculus[1]	4	MA 264	Differential Equations[1]	3
ENGR 260	Vector Mechanics[1]	3	ENGR 261	Dynamics[1]	3
STAT 350	Statistics[2]	3	ENGR 200	Thermodynamics[1]	3
BIOL 121	General Biology I	4	Humanities	Core Gen Ed	3
Soc Sci/Beh	Core Gen Ed	3	BIOL 122	General Biology II	4
	TOTAL	**17**		**TOTAL**	**16**

Purdue University – West Lafayette

Semester 5		*Semester 6*	
EEE 25000: EEE Systems	3	EEE 30000: Modeling	3
CE 34000: Hydraulics	3	CE/EEE 35500: Environ. Engr. Sustainability	3
CE 34300: Hydraulics Lab	1	EEE 39000: Professional Seminar	1
EEE 29000: Intro to EEE Seminar	1	IE 23000: Statistics	3
CE/EEE 35000: Intro to Env. Engr.	3	BIOL 28600: Ecology	2
MA 26500: Linear Algebra	3	EEE Selective	3
General Education Elective	3	**TOTAL**	**15**
TOTAL	**17**		

Semester 7		*Semester 8*	
EEE 48000: Senior Design	1	EEE 48000: Senior Design	2
EEE Selective	3	BIOL 58500: Ecology	3
EEE 360: Env & Ecol Eng Lab	3	EEE Selective	3
EEE Selective	3	EEE Selective	3
EEE Selective	3	General Education Elective	3
General Education Elective	3	EEE 43000: LCA and Industrial Ecology	3
TOTAL	**16**	**TOTAL**	**17**

[1] – Noted courses are designated as meeting the Learning Outcomes of *Environmental and Ecological Engineering* degree programs and are not deemed equivalent to Purdue University courses and will not transfer as such. These courses should be taught by faculty at ITCC with a PhD in an appropriate discipline. As part of this Articulation Agreement Purdue University faculty will collaborate with ITCC faculty to transform these courses to being designated as equivalent.

[2] – STAT 350 is to be taken online through Purdue University.

Environmental & Ecological Engineering Contact: Larry Nies, nies@purdue.edu

ENVIRONMENTAL & ECOLOGICAL ENGINEERING: COURSE TRANSFER RELATIONSHIP:

	Purdue University Courses			Ivy Tech Community College Courses		
	number and name	**cr.**		**number and name**	**cr.**	**notes**
Courses required for Purdue BSEEE program	CHM11500: General Chemistry CHM 1xxx:	4 1	=	CHEM 105: General Chemistry I	5	PTD
	CHM 11600: General Chemistry CHM 1xxx:	4 1	=	CHEM 106: General Chemistry II	5	PTD
	COM 11400: Fundamentals of Speech	3	=	COM 101: Fundamentals of Public Speaking	3	PTD
	ENGL 10100: First-Year Composition	3	=	ENGL 111 English Composition	3	PTD, CTL
	ENGR 13100: Ideas to Innovation I	2	=	ENGR 190 Intro Engineering Design	2	PTD
	ENGR 13200: Ideas to Innovation II ENGR 1xxx:	2 1	=	ENGR 160: Engineering Software Tools	3	PTD
	MA 16100: Plane Analytic Geometry + Calculus I	5	=	MATH 211: Calculus I	4	PTD, CTL
	MA 16200: Plane Analytic Geometry + Calculus II	5	=	MATH 212: Calculus II	4	PTD, CTL
	MA 26100: Multivariate Calculus	4	=	MATH 261: Multivariate Calculus	4	
	MA 26600: Differential Equations	3	=	MATH 264: Differential Equations	3	
	STAT 35000: Intro to Statistics	3	=	To be taken online at Purdue University		
	ME 20000: Thermodynamics I	3	=	ENGR 200: Thermodynamics	3	
	PHYS 17200: Modern Mechanics PHYS 2xxxx:	4 1	=	PHYS 220: Mechanics	5	PTD, CTL
	CE 29700: Basic Mechanics I :Statics	3	=	ENGR 260: Vector Mechanics	3	
	CE 29800: Basic Mechanics II :Dynamics	3		ENGR 261: Dynamics	3	
	BIOL 110: Fund. Biology I	4	=	BIOL 121: General Biology I	4	PTD
	BIOL 111: Fund. Biology II	4	=	BIOL 122: General Biology II	4	PTD
	At least 5 credits Technical Elective required for BSEEE			At least 18 credits EEE Selectives required for BSEEE		
	BIOL 111: Fund. Biology II	4	=	BIOL 122: General Biology II	4	PTD

PTD=Purdue Transfer Database; CTL = Indiana Core Transfer Library
Additionally, many courses in the humanities and social sciences are listed in the Indiana Core Transfer Library and can transfer from Ivy Tech Community College to satisfy part of the General Education requirement of the BSEEE degree.

Note: Purdue requires 32 credit hours at the 30000 level or higher be taken at Purdue.

Notes:

1. ENGL 111 transfers in as ENGL 10100 which satisfies English composition for engineering, but does not satisfy the WC foundational core.
2. MATH 261, MATH 264, ENGR 200, ENGR 260, and ENGR 261 are designated as meeting program Learning Outcomes and may transfer only within the constraints stipulated by this Articulation Agreement.
3. STAT 35000 is to be taken online from Purdue University.