



SINCLAIR COMMUNITY COLLEGE

and

CENTRAL STATE UNIVERSITY

Graduates of Sinclair Community College who have completed the requirements of the **Associate of Science Degree** (University Parallel) and have completed courses as indicated for the Engineering University Transfer program (see Attachment) will receive full credit for the first two years of the **Bachelor of Science in Environmental Engineering** at Central State University.

This agreement will be in effect on the date indicated below and continue for a period of two years, after which time officials from both institutions will make any necessary revisions.

Signatures from representatives at both schools are below.

Effective Date: August, 2017

Sinclair Community College

Central State University

A handwritten signature in blue ink that reads 'David L. Collins'.

A handwritten signature in blue ink that reads 'Pedro L. Martinez'.

David L. Collins, Ph.D.
Provost

Pedro L. Martinez, Ph.D.
Provost and Vice President for Academic Affairs



**Sinclair Community College to Central State University
Articulation and Transfer Course Guide Leading to Central State University
Bachelor of Science Degree in Environmental Engineering**

Introduction: The information in this guide has been reviewed by officials at the listed institutions and has been verified as transferable and applicable towards the major listed. The student who intends to transfer to Central State University for the degree listed, and who completes an Associate of Science (A.S.) degree in Engineering University Transfer at Sinclair Community College, should follow these guidelines in addition to meeting with **Academic Advisors at Sinclair Community College and Central State University.**

Course of Study

Sinclair Engineering University Transfer Degree			Central State ENE Degree		
Sem. Cr.	Course	Description	Sem. Cr.	Course	Description
Mathematics & Statistics					
5	MAT 2270	Calculus & Analytic Geometry I	4	MTH 2502	Calculus I
5	MAT 2280	Calculus & Analytic Geometry II	5	MTH 2503	Calculus II
5	MAT 2290	Calculus & Analytic Geometry III	3	MTH 3002	Multivariate Calculus
4	MAT 2310	Elementary Differential Equations	4	MTH 3110	Differential Equations
4	MAT 2320	Linear Algebra	3	MFE 1210	Engineering Analysis I
3	MAT 2170	Business Statistics I	3	MTH 2001	Probability and Statistics
Total 26			22		
Physics					
5	PHY 2201	General Physics I w/lab	5	PHY 2211	University Physics I w/lab
5	PHY 2202	General Physics II w/lab	5	PHY 2213	University Physics II w/lab
Total 10			10		
Chemistry & Geology					
5	CHE 1211	General Chemistry I w/lab	4	CHM 1201	Chemistry I
5	CHE 1221	General Chemistry II w/lab	4	CHM 1202	Chemistry II
4	GLG 1101	Physical Geology	4	GEL 1101	Physical Geology
Total 14			12		
Engineering & Technology					
4	MET 1231	Introduction to Drafting & Design using Inventor	3	INT 1210	Engr. Comp. Graphics
3	MEE 2101	Statics for Engineers	3	MFE 2310	Statics
3	MEE 2401	Dynamics for Engineers	3	MFE 2420	Dynamics
3	CAT 1501	Fundamentals of Surveying & Mapping	3	INT 3650	Surveying
Total 13			12		
63	Total Credit Hour Parity		56		

General Education				
3	ENG 1101	English Composition I		English Composition I
3	ENG 1201	English Composition II		English Composition II
3	HIS 1105	African-American History		Introductory History of Africans in the U.S
3	OTM	Any HIS Course		Global History
3	OTM	Any ART Course		Art
3	OTM	Social & Behavioral Science Elective		Social Science
3	OTM	Social & Behavioral Science Elective		Social Science
Total 21	Credit Hour Parity		21	

General Notes:

1. It is highly recommended that students complete BIO 1171 at Sinclair (the pre-requisite for BIO 2650 Microbiology at Central State University) before transferring.
2. Students who complete the Engineering University Transfer Associate of Science degree will be admitted as juniors to Central State having satisfied all required general education courses, with the exception of a course in Introductory History of Africans in the U.S. that must be completed either at Sinclair Community College (HIS 1105) or Central State University. First year seminar will be waived.
3. Students 25 or older are exempted from the physical education activity requirement.

**TRANSFER GUIDE COURSE PLAN
FOR THE BACHELOR OF SCIENCE
DEGREE In ENVIRONMENTAL
ENGINEERING**

The curriculum below is to be used in consultation with an academic advisor. The student must be familiar with the University requirements, the core curriculum and any special requirements of the above degree

Year	Course Number	Title	Credit Hrs.	Course Number	Title	Credit Hrs.
Junior	ENE 2200	Introduction to Environmental Engineering	3	BIO 2650	Microbiology	4
	ENE 3305	Fluid Mechanics and Hydraulics	3	ENE 3312	Air Quality Engineering	3
	ENE 3309	Water Chemistry	3	ENE 3320	Engineering Hydrology	3
	MFE 3530	Strength of Materials	3	ENE 3325	Groundwater Hydraulics	3
	MFE 3550	Thermodynamics and Heat transfer	3	ENE 4596	Internship	0
		Total	15		Total	13
Senior	WRM 3370	Introduction to GIS	3	ENE 4405	Applied Hydraulics	3
	ENE 4415	Water Supply	3	ENE 4430	Wastewater Treatment Systems	3
	ENE 4440	Environmental Professional Seminar	1	ENE4425	Solid and Hazardous Waste	3
	ENE 4496	Senior Capstone Design Project I	1	ENE 4498	Senior Capstone Design Project 11	2
	MFE 4720	Manufacturing Quality and Economy	4	WRM 3308	Water and Environmental Law	3
		Total	12		Total	14
					Total hours needed to obtain a degree in Environmental Engineering	133