

SINCLAIR COMMUNITY COLLEGE

and

CENTRAL STATE UNIVERSITY

Graduates of Sinclair Community College who have completed the requirements of the **Associate of Applied Science Degree** and have completed courses as indicated for the Operations Technology (Industrial Engineering Technology option) (see Attachment) will receive credits towards the **Bachelor of Science in Industrial Technology (Manufacturing Management Concentration)** degree 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.


Effective Date: April 9, 2009


**Sinclair Community College**

  
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Steven L. Johnson, Ph.D.  
President

**Central State University**

  
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John W. Garland, Esq.  
President

  
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Helen Grove, Ph.D.  
Senior Vice President and Provost

  
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Terrence Glass, 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 Industrial Technology (Manufacturing Management Concentration)*

**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 Applied Science (A.A.S.) degree in Operations Technology (Industrial Engineering Technology option) at Sinclair Community College, should understand that the below course of study is a listing of all courses that are relevant to the Bachelor of Science degree in Industrial Technology at Central State University. This does not reflect all of the courses required for completion of the Associate of Applied Science Degree in Operations Technology at Sinclair Community College. Please work closely with advisors at Sinclair and Central State University.

**Course of Study**

Sinclair Degree			Central State Degree		
Qtr. Cr.	Course	Description	Sem. Cr.	Course	Description
<b>Mathematics</b>					
5	MAT 131	Technical Mathematics I	3	MTH 1750	College Algebra
5	MAT 132	Technical Mathematics II	3	MTH 2501	Trigonometry
5	MAT 133	Technical Mathematics III	3	MTH 2001	Probability & Statistics
<b>English</b>					
3	ENG 111	English Composition I	4	ENG 1101	Introduction to Writing for College
3	ENG 112	English Composition II	4	ENG 1102	Writing & Researching the Essay
3	ENG 113	English Composition III			
<b>Natural and Physical Sciences</b>					
4	PHY 131	Technical Physics I	3	---	General Education - C
4	PHY 132	Technical Physics II	3	---	General Education - C
<b>Industrial Technology Requirements</b>					
2	OPT 198	Excel for Engineering Technology	3	MFE 1110	Principals of Manufacturing
3	OPT 205	Manufacturing Processes	3	BUS 1100	Contemporary American Business
3	OPT 125	Introduction to World-Class Operations			
3	OPT 101	Introduction to Operations			
3	ETD 128	Print Reading with GD&T	4	INT 1110	Engineering Print Reading
2	ETD 199	Introduction to Computer Aided Drafting Concepts			
1	OPT 105	Introduction to OSHA General Industry Standards	3	INT 2410	Industrial Safety & Health
3	OPT 112	Ergonomics	3	INT 3530	Quality Control (SPS/DOE)
3	OPT 201	Statistical Process Control			
3	OPT 240	Six Sigma – Green Belt			
<b>Electives (Technical/Humanities)</b>					
3	OPT 207	Operations System Analysis	3	---	Technical Electives
3	OPT 209	Operations Cost Analysis			
3	---	Humanities Electives	3	---	Humanities Electives
<b>Completion of the following classes is recommended before admission to Central State.</b>					

General Education – Bridge Courses					
Sinclair Degree			Central State Degree		
Qtr. Cr.	Course	Description	Semester Cr.	Course	Description
4	HIS 105	African-American History	3	HIS 1110	Intro History of Africans in the U.S
3	---	Humanities Electives	3	---	Humanities Electives <sup>1</sup>
9	---	Social Science Electives	9	---	Social Science Electives
4	---	Natural and Physical Sciences	3	*	Natural and Physical Sciences <sup>2</sup>
3	PED 236	Personal & Community Health	2	HPR 1000	Health & Wellness
1	---	PED Activity	1	---	HPR Activity <sup>3</sup>
Technical – Bridge Courses <sup>4</sup>					
5	ETD 287	Solid Edge Basics	3	INT 1210	Engineering Computer Graphics
5	ETD 291	Unigraphics Basics	3	INT 2320	Advanced 3-D Modeling
4	EET 150	D.C. Circuits	4	INT 2310	Circuit Analysis
4	EET 155	A.C. Circuits			
3	EGR 144	Sensors	3	INT 2420	Industrial Instrumentation & Process Control
3	EGR 215	Control Systems			
4	ETD 213	Statics	3	INT 2460	Applied Statics
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5	ACC 121	Principles of Financial Accounting	3	ACC 2201	Principles of Accounting

**General Notes:**

<sup>1</sup> Requires HIS 1121/1122 Global History I/II from Central State, or equivalent from Sinclair.

<sup>2</sup> Requires 3 hours of Natural and Physical Sciences other than Physics.

<sup>3</sup> Students 25 or older are exempted from the physical education activity requirement.

<sup>4</sup> Students are encouraged to complete these courses at Sinclair or enroll at Central State using the SOCHE consortium before transferring to Central State.

<sup>5</sup> All students must satisfy the English proficiency requirement by testing or passing ENG 3000.



**TRANSFER GUIDE COURSE PLAN FOR THE DEGREE, BACHELOR OF SCIENCE  
MAJOR In Industrial Technology (Manufacturing Management Concentration)**

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 for the above degree.

FALL SEMESTER				SPRING SEMESTER			
Year	Course Number	Title	Credit Hrs	Year	Course Number	Title	Credit Hrs
<b>Junior</b>	INT 3510	Materials & Machine Processes	3	<b>Junior</b>	ACC 2240	Managerial Accounting	3
	INT 3540	Programmable Logic Controllers	3		BUS 2343	Principles of Management	3
	INT 3550	Applied Strength of Materials	3		INT 3610	Plastics Technology	3
					INT 3620	Computer Numerical Control	3
		Total	<b>9</b>			Total	<b>12</b>
<b>Senior</b>	INT 4710	Manufacturing Processes	3	<b>Senior</b>	BUS 2353	Principles of Marketing	3
	INT 4730	CAD/CAM/CAE	3		BUS 3331	Principle of Finance	3
	INT 4795	Senior Design Capstone I	2		MKT 3456	Purchasing	3
	MGT 4441	Labor Management	3		INT 4895	Senior Design Capstone II	2
			Total		<b>11</b>		
						Total hours needed to obtain an Industrial Technology, Manufacturing Management Concentration degree	<b>130</b>