Earn your associate degree from Sinclair College and then transfer seamlessly to Wright State University to earn your bachelor's degree.

**Sinclair College** 

to

**Wright State University** 

**Mechanical Engineering Technology** 

Engineering Technology with Industrial and Systems Engineering Track
Bachelor of Science

**Associate of Applied Science** 





Studies in industrial and systems engineering (ISE) focus on doing more with less—doing things better, cheaper, faster, more safely, and with less waste. Instead of designing bridges, machines, or circuits, industrial engineers will engineer all parts of a process—people, machines, materials, information, and energy—to make a product or provide a service. Students interested in ISE must contact the advising office (cecs-advisors@wright.edu or 937-775-5272) at Wright State University as early in their interest as possible.

Students interested in Wright Path program benefits will apply to the program through the Wright State website at **wright.edu/sinclair**.

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
CAM MET	1109 + 2401	3+3	Fundamentals of Tooling & Machining Machine Design	UNK 1XXX General Elective Credit (Excess)	3
СОМ	2211	3	Effective Public Speaking	COM 1010  Element A: Communication	3
ENG	1101	3	English Composition I	ENG 1100 Element A: Communication	3
MAT	1470 + 1570 or	3+3 or	College Algebra Analytic Geometry & Trigonometry	MTH 1280 + 1350 General Elective Credit	3+3 or
	1580	5	Precalculus	(Excess)	3+2
MET	1111	3	Preparatory Math for Engineering Technology	UNK 1XXX  General Elective Credit (Excess)	3
MET	1161	1	Software Tools for Engineering Technology	UNK 1XXX  General Elective Credit (Excess)	1
MET	1231 or 1301	4	Introduction to Engineering Design Using 3D CAD SolidWorks Basics (MET 1231 CTAG CTMET005 Eligible Credit)	UNK 1XXX or ME 1040 + 1XXX (ME 1040 CTAG CTMET005 Eligible Credit)	4 or 3+1
MET	2101	3	Thermodynamics	UNK 2XXX  General Elective Credit (Excess)	3
MET	2151	4	Material Science	UNK 2XXX	4

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## **Associate of Applied Science**

				General Elective Credit	
MET	2201	3	Statics	(Excess) UNK 2XXX	3
IVIL I	2201	3	Statics		3
				General Elective Credit	
	0054		0, ,, ,,	(Excess)	
MET	2251	3	Strength of Materials	UNK 2XXX	3
				General Elective Credit	
				(Excess)	
MET	2281	3	Engineering Technology	UNK 2XXX	3
			Professional Practice	General Elective Credit	
				(Excess)	
MET	2301	3	Fluid Mechanics	UNK 2XXX	3
IVIL I	2301	3	i luid Mechanics		3
				General Elective Credit	
				(Excess)	
MET	2351	3	Dynamics	UNK 2XXX	3
				General Elective Credit	
				(Excess)	
MET	2780	3	Mechanical Engineering	UNK 2XXX	3
			Technology Capstone	General Elective Credit	
			37 - 1	(Excess)	
PHY	1141	4	College Physics I	PHY 1110 + 1110L	3+1
	' ' - ' '	-	College 1 Hysics 1		0.1
DUV	1110	4	Oallana Dharaina II	Element E: Natural Science	0.4
PHY	1142	4	College Physics II	PHY 1120 + 1120L	3+1
			Mechanical Engineering Technology Elective	Element E: Natural Science	
		3	One Ohio Transfer 36 Social &	Element D: Social	3
			Behavioral Science Course	and Behavioral	
				Science	
TOTAL		61-62			61-62

• Choose one Ohio Transfer 36 Social & Behavioral Science course from (Consult with your Sinclair and Wright State advisors for additional course options):

SINCLAIR COURSE	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
AFR 1100	3	African American Studies	AFS 2000	3
ECO 1100	3	Introduction to Economics	EC 2XXX	3
ECO 2160	3	Principles of Macroeconomics	EC 2050	3
ECO 2180	3	Principles of Microeconomics	EC 2040	3
GEO 1101	3	Global Forces, Local Diversity	GEO 2200	3
GEO 1102	4	Earth's Physical Environment	GEO 2100 +	3+1
			Elective	

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SINCLAIR COURSE	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
GEO 1201	3	World Regional Geography: People, Places & Globalization	GEO 3300	3
PLS 1120	3	American Federal Government	PLS 2120	3
PLS 1232	3	State & Local Government	PLS 3220	3
PLS 2200	3	Political Life, Systems & Issues	PLS 2000	3
PLS 2220	3	International Relations	PLS 2220	3
PSY 1100	3	General Psychology	PSY 1010	3
PSY 1160	3	Black Psychology	PSY 1XXX	3
SOC 1101	3	Introduction to Sociology	SOC 2000	3
SOC 1117	3	Popular Culture	SOC 1XXX	3
SOC 1145	3	Introduction to Cultural Anthropology	ATH 2150	3

- All students with declared Engineering Technology major are automatically admitted as Pre-Engineering Technology students.
- In order to be admitted fully as an engineering technology major at Wright State, students will need to achieve a cumulative GPA of a 2.25 at Wright State.
- Students must earn a C or higher in ENG 1101, MAT 2270, and PHY 1141 at Sinclair.
- 124-142 hours minimum are required for a BS degree at Wright State.

**Total Credit Hours for Associate Degree: 61-62** 

All students pursing an Engineering Technology program at Wright State must complete the following coursework at Sinclair prior to transferring to Wright State in order to graduate from Wright State in a timely manner:

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
ISE	2220	3	Applied Statistics for Process Control & Improvement	ISE 2211	3
MAT	2270	5	Calculus and Analytic Geometry I	MTH 2300 + Elective Element B: Mathematics + General Elective Credit	4+1
TOTAL		8			8

• Students must earn a C or higher in MAT 2270 at Sinclair.

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Students opting for Business Analytics and Computing and Information Technology Emphases must also complete the following coursework at Sinclair <u>prior to</u> transferring to Wright State in order to graduate from Wright State in a timely manner:

SUBJECT CODE	COURSE NUMBER	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
ISE	2240	3	Six Sigma: Green Belt	ISE 2XXX (Substitutes for ISE 4850 Requirement)	3
		3	One Ohio Transfer 36 Arts & Humanities History Course	Element C: Arts and Humanities - History	3
TOTAL		6	-	•	6

• Choose one Ohio Transfer 36 Arts & Humanities history course from:

SINCLAIR COURSE	SINCLAIR CREDIT HOUR	COURSE TITLE	WRIGHT STATE COURSE #	WRIGHT STATE CREDIT HOUR
HIS 1101	3	United States History I	HST 2110	3
HIS 1102	3	United States History II	HST 2120	3
HIS 1105	3	African American History	HST 1XXX	3
HIS 1111	3	Western Civilization I	HST 1100	3
HIS 1112	3	Western Civilization II	HST 1200	3
HIS 2215	3	Survey of African History	RST 2710	3
HIS 2216	3	Survey of Latin American History	RST 2810	3
HIS 2217	3	Survey of East Asian History	RST 2XXX	3
HIS 2218	3	History of Ohio	HST 2XXX	3

#### **BUSINESS ANALYTICS EMPHASIS**

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	THIRD YEAR				
Wright St	ate Unive	rsity			
SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOURS		
		FALL SEMESTER			
CS	1160	Introduction to Computer Programming	4		
EE	2010	Analog Circuit Theory	3		
EE	2010L	Analog Circuit Theory Lab	1		
ISE	4150	Advanced Probability and Statistics for Engineering	3		
ISE	4711	Operations Research I	3		
		SPRING SEMESTER			
EGR	3350	Technical Communications for Engineers and Scientists  Element A: Communication	3		
ISE	4510 or	Computer Applications in ISE	3		
	4820	Supply Chain Analysis and Design			
ISE	4712	Simulation and Stochastic Models	4		
ISE	4830	Engineering Project Management and Applications	3		
MIS	3000	Fundamentals of Information Systems	3		
Total Hou	irs:		30		

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		FOURTH YEAR	
Wright St	tate Unive	rsity	
SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOURS
		SUMMER SEMESTER	
		Element C: Arts and Humanities	3
		Global Inquiry	
		Integrated Writing	
		Element D: Social and Behavioral Science	3
		FALL SEMESTER	_
ISE	4400	Engineering Economy	3
ISE	4810	Production and Service Systems	3
ISE	4910	Industrial and Systems Engineering Design I	3
MIS	3820	Data Mining for Business	3
MIS	3840	Data Visualization for Business	3
		SPRING SEMESTER	
EE	4120	Industrial Controls and Automation	3
EE	4120L	Industrial Controls and Automation Laboratory	1
ISE	4920	Industrial Systems Design Engineering Design II	3
MIS	3810	Introduction to Business Data	3
MIS		Business Analytics Emphasis Electives	6
Total Hou	ırs:		37

**Total Credit Hours for Bachelor's Degree: 138-139** 

**COMPUTING AND INFORMATION TECHNOLOGY EMPHASIS** 

**Sinclair College** 

to

**Wright State University** 

**Mechanical Engineering Technology** 

**Associate of Applied Science** 

Engineering Technology with Industrial and Systems Engineering Track
Bachelor of Science

		THIRD YEAR	
Wright St	tate Unive	rsity	
SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOURS
		FALL SEMESTER	
CEG CS	2170 or 1160	Introduction to C Programming for Scientists and Engineers Introduction to Computer Programming	4
EE	2010	Analog Circuit Theory	3
EE	2010L	Analog Circuit Theory Lab	1
ISE	4150	Advanced Probability and Statistics for Engineering	3
ISE	4711	Operations Research I	3
		SPRING SEMESTER	
CS	1180	Computer Science I	4
EGR	3350	Technical Communications for Engineers and Scientists  Element A: Communication	3
ISE	4510 or	Computer Applications in ISE	3
	4820	Supply Chain Analysis and Design	
ISE	4712	Simulation and Stochastic Models	4
ISE	4830	Engineering Project Management and Applications	3
Total Hou	ırs:		31

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		FOURTH YEAR	
Wright St	tate Unive	rsity	
SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOURS
		SUMMER SEMESTER	
		Element C: Arts and Humanities	3
		Global Inquiry	
		Integrated Writing	
050	0050	FALL SEMESTER	4
CEG	2350	Operating System Concepts and Usage	4
ISE	4400	Engineering Economy	3
ISE	4810	Production and Service Systems	3
ISE	4910	Industrial and Systems Engineering Design I	3
		Element D: Social and Behavioral Science	3
		SPRING SEMESTER	
CEG	2400	Introduction to PC Networking	3
CEG	3400	Introduction to CyberSecurity	3
CS	3700	Introduction to Databases and Modeling	3
EE	4120	Industrial Controls and Automation	3
EE	4120L	Industrial Controls and Automation Laboratory	1
ISE	4920	Industrial Systems Design Engineering Design II	3
Total Hou	ırs:		35

**Total Credit Hours for Bachelor's Degree: 141-142** 

#### **EARNED ASSOCIATES TECHNICAL FOUNDATIONS EMPHASIS**

This emphasis is available to only transfer students with an earned associate's degree in an engineering technology field.

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**Mechanical Engineering Technology** 

**Associate of Applied Science** 

Engineering Technology with Industrial and Systems Engineering Track
Bachelor of Science

	THIRD YEAR			
Wright S	tate Unive	rsity		
SUBJECT	COURSE NUMBER	COURSE TITLE	CREDIT HOURS	
		FALL SEMESTER		
CS	1160	Introduction to Computer Programming	4	
ISE	4150	Advanced Probability and Statistics for Engineering	3	
ISE	4711	Operations Research I	3	
		Element C: Arts and Humanities	3	
		Global Inquiry		
		Integrated Writing		
		Element D: Social and Behavioral Science	3	
		SPRING SEMESTER	<u> </u>	
EE	2010	Analog Circuit Theory	3	
EE	2010L	Analog Circuit Theory Lab	1	
EGR	3350	Technical Communications for Engineers and Scientists  Element A: Communication	3	
ICE	4510 or	·		
ISE	4820	Computer Applications in ISE Supply Chain Analysis and Design	3	
ISE	4712	Simulation and Stochastic Models	4	
Total Hou		Oliticiation and Stochastic Models	30	

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FOURTH YEAR			
Wright State University			
SUBJECT CODE	COURSE NUMBER	COURSE TITLE	CREDIT HOURS
FALL SEMESTER			
ISE	4400	Engineering Economy	3
ISE	4810	Production and Service Systems	3
ISE	4850	Six Sigma for Engineers	3
ISE	4910	Industrial and Systems Engineering Design I	3
		Element C: Arts and Humanities - History	3
SPRING SEMESTER			
EE	4120	Industrial Controls and Automation	3
EE	4120L	Industrial Controls and Automation Laboratory	1
ISE	4830	Engineering Project Management and Applications	3
ISE	4920	Industrial Systems Design Engineering Design II	3
Total Hours:			25

**Total Credit Hours for Bachelor's Degree: 124-125** 

## 1.ADMISSIONS AND DEADLINES

#### Join the Wright Path Program

Students interested in applying to the Wright Path must submit a request for membership at wright.edu/sinclair.

High school students must be close to graduating before applying to the Wright Path, and current Sinclair College students must have a minimum 2.0 GPA.

#### Transfer to Wright State University

Students must earn a minimum 2.0 GPA from Sinclair College in order to transfer to Wright State.

Wright State processes applications as they are received. To help you make a smooth and timely transition, we recommend you submit your application by the following dates:

Sinclair College

to

Wright State University

**Mechanical Engineering Technology** 

**Engineering Technology with Industrial** and Systems Engineering Track **Bachelor of Science** 

#### **Associate of Applied Science**

Fall Semester: April 1 Spring Semester: October 15 Summer Semester: February 1

Students must apply for undergraduate admission one semester prior to completing their studies at Sinclair College.

In order to be admitted fully as an engineering technology major at Wright State, students will need to achieve a cumulative GPA of a 2.25 at Wright State.

Students must earn a C or higher in ENG 1101, MAT 2270, and PHY 1141 at Sinclair.

# 2. TUITION AND SCHOLARSHIPS

Students interested in scholarship opportunities at Wright State should contact:

**Transfer Center** 138 Student Union 3640 Colonel Glenn Hwy. Dayton, OH 45435 937-775-5700 transfer@wright.edu

## 3. CONTACT INFORMATION

Sinclair College Academic Advising Center **Building 10-301** 444 W. Third St. 937-512-3700

Wright State University **Transfer Center** 138 Student Union 3640 Colonel Glenn Hwy. 937-775-5700

This agreement will expire two years from date of signature.

Charles Long, M.S.

J/G /2025

J/G /2025

Date Manager of Curriculum, Transfer, and Articulation

Sinclair College

Jim Denniston, Ph.D.

Date

Provost and Senior Vice President for Academic Affairs Wright State University