TEMPLE COLLEGE
TEMPLE HUTTO TAYLOR

MEMORANDUM

PROVOST, VICE PRESIDENT OF ACADEMIC AFFAIRS AND STUDENT SERVICES

To: Dr. Christina Ponce

From: Dr. Susan Guzmán-Treviño

Date: November 17, 2025

RE: Approval of Automated Manufacturing and Semiconductor Engineering Technology Program

We are requesting the Board of Trustees approve offering the Associate of Applied Science, Automated Manufacturing and Semiconductor Engineering Technology, Enhanced Skills Certificate, and other embedded awards.

The Associate of Applied Science in Automated Manufacturing and Semiconductor Engineering Technology addresses regional workforce shortages in automation and semiconductor industries driven by employers such as Samsung and Texas Instruments. The program provides a pathway from entry-level to advanced technician roles, embedding industry-recognized credentials. Designed under Temple College's TIME Center model, the program integrates hands-on, credit, and non-credit learning aligned with state workforce priorities and the Texas CHIPS Act. Graduates will be equipped with the technical skills, certifications, and experience needed to meet Central Texas's expanding demand for advanced manufacturing professionals.

The Curriculum Committee unanimously approved the new programs and credentials at the November 5, 2025 Curriculum meeting. If approved by the board, students may enroll in the program for the fall 2026 semester. Please see following pages for the degree plans for:

- Occupational Skills Award (OSA), Industrial Automation Foundations-Page 2
- Level 1 Certificate, Integrated Robotics & Automated Manufacturing-Page 3
- Level 2 Certificate, Semiconductor Technician-Page 4
- Associate of Applied Science (AAS), Automated Manufacturing and Semiconductor Engineering Technology-Page 5
- Enhanced Skills Certificate, Chip Design & Verification-Page 6

We appreciate your consideration of this request.

Occupational Skills Award (OSA)
Industrial Automation Foundations

	Occupational Skills Award - Industrial Automation Foundations			
1st 8 weeks	1405	RBTC	Robotics Fundamentals	4
1st 8 weeks	1417	INMT	Industrial Automation	4
2nd 8 weeks	1343	RBTC	Robotics	3
			Total	11

Level 1 Certificate
Integrated Robotics & Automated Manufacturing

			Level 1 Certificate - Integrated Robotics & Automated Manufacturing	
1st 8 weeks	1405	RBTC	Robotics Fundamentals	4
1st 8 weeks	1417	INMT	Industrial Automation	4
2nd 8 weeks	1343	RBTC	Robotics	3
2nd 8 weeks	1343	INTC	Application of Industrial Automatic Controls	3
Fall Total				14

1st 8 weeks	2445	RBTC	Robot Application, Set-up, and Testing	4
1st 8 weeks	1326	MCHN	Introduction to Computer-Aided Manufacturing (CAM)	3
Spring Total				7
Level 1 Total				21

Level 2 Certificate
Semiconductor Technician

			Level 2 Certificate - Semiconductor Technician	
Fall				
1st 8 weeks	1405	RBTC	Robotics Fundamentals	4
1st 8 weeks	1417	INMT	Industrial Automation	4
2nd 8 weeks	1343	RBTC	Robotics	3
2nd 8 weeks	1343	INTC	Application of Industrial Automatic Controls	3
			Semester Total	14
Spring				
	2445	RBTC	Robot Application, Set-up, and Testing	4
	1326	MCHN	Introduction to Computer-Aided Manufacturing (CAM)	3
	2335	SMFT	Vacuum Technology	3
	1343	SMFT	Semiconductor Manufacturing Technology	3
			Semester Total	13
Fall				
1st 8 weeks	2450	SMFT	Vaccum Thin Films	4
1st 8 weeks	2338	SMFT	Radio Frequency (RF) Plasma Systems	3
2nd 8 weeks	2345 2380	INMT SMFT	Industrial Troubleshooting **OR** Cooperative Education - Computer Engineering Technology / Technician	3
			Semester Total	10
			Level 2 Certificate Total	37

Associate of Applied Science (AAS)
Automated Manufacturing and Semiconductor Engineering Technology

AAS Degree in Automated Manufacturing and Semiconductor Engineering Technology				
Fall				
1st 8 weeks	1405	RBTC	Robotics Fundamentals	4
1st 8 weeks	1417	INMT	Industrial Automation	4
2nd 8 weeks	1343	RBTC	Robotics	3
2nd 8 weeks	1343	INTC	Application of Industrial Automatic Controls	3
			Semester Total	14
Spring				
1st 8 weeks	2445	RBTC	Robot application, Set-up, and Testing	4
1st 8 weeks	1326	MCHN	Introduction to Computer-Aided Manufacturing (CAM)	3
2nd 8 weeks	2335	SMFT	Vacuum Technology	3
2nd 8 weeks	1343	SMFT	Semiconductor Manufacturing Technology	3
			Semester Total	13
Summer				
Summer 1	1302	ENG	English	3
Summer 2	1302	SPCH	Speech	3
			Semester Total	6
Fall				
1st 8 weeks	2450	SMFT	Vacuum Thin Films	4
1st 8 weeks	2338	SMFT	Radio Frequency (RF) Plasma Systems	3
2nd 8 weeks	2345	INMT	Industrial Troubleshooting	3
2nd 8 weeks			College Math or Physical Science	4
			Semester Total	14
Spring				3
1st 8 weeks	2380	SMFT	Cooperative Education - Computer Engineering Technology / Technician	4
1st 8 weeks	1391	CETT	Special Topics in Computer Engineering Technology / Technician	3
2nd 8 weeks			Social Behavioral Science	3
2nd 8 weeks			Humanities/Fine Arts	3
			Semester Total	13
Associate of Applied Science Degree in Automated Manufacturing and Semiconductor Engineering Technology				60

Enhanced Skills Certificate (ESC)
Chip Design & Verification

Enhanced Skills Certificate-Chip Design & Verification	
Fall - 1st 8 Weeks	Credits
ELMT 2333- Industrial Electronics	3
ELPT 1355- Electronic Applications	3
Semester SCH	**6**
Fall - 2nd 8 Weeks	
ELMT 1391- Special Topics in Electromechanical Technology/Technician	3
CETT 2349- Research and Project Design	3
Semester SCH	**6**
Total SCH	**12**