

New Program Request Form

CA1

General Information

Institution submitting proposal	Manhattan Area Technical College
Name, title, phone, and email of person submitting the application (<i>contact person for the approval process</i>)	Kerri Bellamy, Dean of Advanced Technology/CAO 785-320-4530, kerribellamy@manhattantech.edu
Identify the person responsible for oversight of the proposed program	Kerri Bellamy, Dean of Advanced Technology/CAO
Title of proposed program	Industrial Maintenance Technology
Method of program delivery (face to face, online, hybrid)	Hybrid
Proposed suggested Classification of Instructional Program (CIP) Code	47.0303
CIP code description (from nces.ed.gov/ipeds)	A program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.
Standard Occupation Code (SOC) associated to the proposed CIP code	49-9041
SOC description (from onetonline.org)	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans.
Number of credits for the degree <u>and</u> all certificates requested	AAS – 60 CERTA - 20 CERTB - 38
Proposed Date of Initiation	Fall 2025
Specialty program accrediting agency	N/A
Industry-recognized certification(s) to be earned by students	OSHA 10 Certified Maintenance and Reliability Technician (CMRT) Nc3 Certification Opportunities: Fundamentals of Industry 4.0, Fundamentals of Electricity-DC, Fundamentals of Electricity-AC, Introduction to Mechatronics

Signature of College Official Kerri Bellamy Date 3/20/2025

Revised/Approved April 2022, June 2023, March 2024, and July 2024

Signature of KBOR Official_____ Date_____

Narrative

Program Rationale

The genesis of the need for a program such as industrial maintenance technology in our service area was a direct result of the construction of NBAF. The director of the Bioscience Research Institute (BRI) at Kansas State University as well as his facility staff indicated that MATC should design and implement a program to train facility technicians to support both BRI and NBAF. The general contractor for the NBAF project, US Engineering, reinforced and supported that request.

While Kansas State University would provide many of the research scientists and veterinary scientists for both key lab operations, both facilities need skilled technicians to ensure operational safety and compliance. These discussions began in 2016-17 and culminated in designing the Critical Environment Technology program through an NSF grant during 2019-2021. That project showed us the need for a foundational program of industry technology, thus was born the industrial engineering tech grant which had initial equipment funds provided through a Kansas Department of Commerce grant during the pandemic.

In addition to syncing with Critical Environment Technology, the Industrial Engineering Technology program drew almost immediate attention from area employers, especially Michelin in Junction City. They have already employed three of our students and at least one student went to work at NBAF during its set-up phase (and has already been promoted by Johnson Controls). During the program development processes of CET and IET we used similar employers from the region for input and support and these have become the advisory committee for the programs. IET is ultimately transforming into IMT.

MATC is an active partner in regional economic development in its service area. The President is an ex officio member of the Manhattan Chamber of Commerce, the Greater Manhattan Economic Partnership, and participates in meetings of the Junction City and Wamego Chambers of Commerce. Materials in this application include several letters of support from key regional employers and also the endorsement of our Program Advisory Committee for the Industrial Maintenance Technology Program.

While other programs exist in this region of Kansas, Salina Area Technical College and MATC share Dickinson County, there is a growing employer need for IMT graduates in Geary, Riley, and Potawatomi Counties; which are outside of SATC service area. Employers in the MATC area are seeking employees with the skills the IMT program offers. Michelin, for example, in Junction City has already hired several MATC students to work for them, and the company pays for the students' tuition/fees while they finish their program with MATC. Organizations such as NBAF and BRI seek entry-level employees with the skills provided by IMT, as do local manufacturers such as MANKO. The program reinforces MATC's collaboration with Kansas State University and area economic development efforts related to biotechnology industries as the support personnel for facilities need the IMT skills. Our current capacity for this program is 16 students, with a projected first year enrollment of 8.

Program Description and Requirements

Catalog Description:

Industrial Maintenance Technicians are responsible for the installation, repair, and maintenance of industrial controls and machinery, ensuring operational efficiency and minimizing downtime. These technicians work collaboratively with operational staff to troubleshoot and resolve issues.

The program provides top-notch instruction in both theoretical and practical skills, essential for thriving in advanced manufacturing, industrial automation, and mechanical troubleshooting. With both degree and certificate paths available, students are equipped with the expertise to stand out and succeed in the competitive industrial and maintenance sectors. Degree and certificate students delve into key areas such as mechanical and electrical systems, hydraulics, pneumatics, PLC programming, and industrial controls.

Program Objectives

The Program Objectives for our Manhattan Area Technical College Industrial Maintenance Technology Program are to:

- Perform maintenance and repairs electrical systems and mechanical systems ensuring their proper operation.
- Read and interpret blueprints, technical diagrams, and schematics to guide equipment installation, troubleshooting, and repair of industrial systems.
- Configure, program, and troubleshoot programmable logic controllers (PLCs) to maintain automation systems.
- Select the most suitable process sensors (optical, temperature, pressure, level, flow) based on proper application requirements for designed range, and accuracy.
- Implement and maintain motor control circuits in automated systems, ensuring efficient operation of machinery.
- Install, test, and repair electrical wiring in control circuits in accordance with application of industry standards.
- Diagnose faulty equipment and troubleshoot mechanical drives systems to ensure quick and accurate adjustments of equipment.
- Service and repair hydraulic, pneumatic, and mechanical drive components to ensure optimal functionality of industrial machinery.
- Adhere to safety policies and procedures to carry out workplace safety requirements while ensuring a safe working environment.

Admission Requirements

Program Seeking Students

Students who wish to attend a Manhattan Tech academic program must submit the materials below to be considered for admission:

- Complete college application and application fee (found online at manhattantech.edu)
- Official transcript verifying graduation and final grades from an accredited high school, registered home school, or a General Education Development (GED®) diploma.
- ACT scores within the last three years, if available.
- Meet college placement assessment criteria, unless exempt from assessment based on ACT scores (Refer to Entrance Assessment section for additional details).

High School/Concurrent Enrollment/Dual Credit Students

Students may receive concurrent high school/college credit, which can be applied toward a Manhattan Tech technical certificate/degree following the student's high school graduation. (Part-time enrollments will be considered if program space is available.)

Students interested in enrolling should refer to www.manhattantech.edu/concurrent for more information and consult with their guidance counselor to determine course interest and eligibility.

Admission/Enrollment Guidelines for Concurrent Credit/Dual Credit for High School Students:

- Students must be classified as a sophomore, junior, or senior in high school.
- Students must have a cumulative GPA of 2.5 or higher.
- Students must take the ACCUPLACER or show qualifying ACT scores to enroll in English Composition I and/or College Algebra. To schedule a placement test, visit www.manhattantech.edu/proctor
- Students are required to attend an enrollment session at their respective high school and submit their completed Concurrent Enrollment Form/Parent Financial Agreement. Students should check with their guidance counselor or the Manhattan Tech website for specific dates/deadlines, enrollment forms, and payment information.

Please note: these guidelines also apply to homeschooled students receiving dual credit.

High school students wishing to enroll in courses held on campus at Manhattan Tech or online who are not obtaining Dual Credit will follow standard entrance specifications. Refer to General Admission Requirements for those provisions.

Graduation Requirements

Students who intend to graduate with a technical Certificate and/or Associate Applied Science degree must complete the following requirements to graduate and/or participate in commencement exercises:

- Submit the Intent to Graduate form (available on MATC Online) and fee.
- Satisfactorily complete all course work for technical certificate/degree.
- Achieve a cumulative GPA of 2.0 or higher.
- Have no more than 6 credit hours of course requirements remaining to complete the Certificate/Degree.
- Fulfill all financial obligations to Manhattan Tech as well as Financial Counseling, if applicable.

There is also one work-based learning course, Occupational Work Experience, during the summer term. This course gives students opportunities to work in business, nonprofits, or governmental employment settings to apply knowledge from previous coursework. Students will be evaluated by their instructor and supervisor in the employment setting for this course.

Demand for the Program

Demand for this program in the Manhattan Area Technical College service area is reinforced by the Kansas Department of Labor occupational data, shown below.

- Annual occupational growth for next 10 years: 19.5%
- Estimated annual median wages: \$61,800

- Typical education level needed for entry: High School Diploma or equivalent, however new technology demands for the occupation are anticipated to increase entry-level educational needs.

The Department of Labor indicated that Industrial Machinery Mechanics were among the 56 occupations in Kansas identified as high demand, high wage requiring less than a baccalaureate degree in 2024. ([Today's Occupations: High Demand, High Wage Jobs < Bachelor's \(ks.gov\)](#) Pub. 01-2024, p28).

The Industrial Maintenance Technology program is designed to address the needs of regional employers who have already adopting these advanced manufacturing techniques, newly entering manufacturing industries, as well as those transitioning this technology into the agricultural and energy sectors. By ensuring a steady supply of well-trained Industrial Maintenance Technicians, this program will support the capacity of these industries to set up, operate, and repair digitally controlled and automated systems in both existing and new manufacturing environments.

Regional demand for this program is substantiated by letters of support from key industries, each underscoring the critical role of Industrial Maintenance Technologists in their current operations and future growth plans. Anticipated new manufactures in the community to include Scorpion Biological Services (500 new jobs in next 7 years), Radiation Detection Technologies-RDT (30 jobs in next five years) and HydroGraph Clean Power (100 new jobs overall). The Professional Advisory Committee at Manhattan Tech, which includes representation from regional employers, has also formally endorsed the establishment of this program.

While the CIP code 47.0303 was not included in the FY23-24 Comprehensive Local Needs Assessment, the CLNA has identified Advanced Manufacturing as a critical pathway for regional development. Manhattan Area Technical College (MATC) boasts a job placement rate exceeding 90% annually for graduates of its Industrial Engineering Technology program (which will be sunset contingent on approval of the new Industrial Maintenance Technology program). The CLNA Team evaluated the CIP code for our Industrial Engineering Technology program (IET), 15.0613, and for Automation Engineer Technology, 15.0406 and after the Needs Assessment was complete the decision was made to pivot the IET curriculum to align with the Industrial Maintenance Technology alignment, which was very similar to Automation Engineer Technology, issued in October 2024 whose CIP code was not included in the CLNA. This transition to an Industrial Maintenance Technology program will not only opens doors for new students but also offers opportunities to retrain the existing industrial maintenance workforce within our communities. Currently there are no specific business/industry partnerships in place for IMT.

Letters of support from local industry are provided in **Attachment A** from the following industry contacts.

- Nicholas Moats – President, KG Moats & Sons Engineering Inc.
- Jacob Picolet – Sr. Engineer, Kansas State University Technology Development Institute
- Darren Fair – Sr. Manager Robotics & Automation Engineering, Textron Aviation
- Neal Strathman – Semiconductor Technician, Radiation Detection Technologies, Inc.
- Greg Knabe – COO, Bev-Hub

Duplication of Existing Programs

Name of Institution	Program Title	CIP Code	Award	Total # Declared Majors	Total # Grads	Total #Grads Exited& Employed	Med Wage of Grads Employed
Garden City Community College	Industrial Mechanics And Maintenance Technology/Technician	47.0303	AAS/CERT	28	^	^	^
Neosho County Community College	Industrial Mechanics And Maintenance Technology/Technician	47.0303	AAS/CERT	^	^	^	^
Washburn Institute of Technology	Industrial Mechanics And Maintenance Technology/Technician	47.0303	AAS/CERT	51	23	15	\$66,874
Wichita State University Campus of Applied Sciences and Technology	Industrial Mechanics And Maintenance Technology/Technician	47.0303	AAS/CERT	41	19	14	\$68,271

**Salina Area Technical College and Dodge City Community College began duplicate programs in AY25. No KTIP data is available for them at this time.*

Program Information

We have reached out to Washburn Tech and Salina Tech about collaboration possibilities. While both are open to it, neither could provide a qualified instructor to come to MATC and teach full time for us as we need it. We are also responding to employer interest and requests within our service area. Our program is designed to meet their needs through the core curriculum as well as areas where we can customize to their particular needs. Our program also reinforces the work MATC is doing, in collaboration with Kansas State University, to support facility staff skills for NBAF, BRI, and future biotechnology companies and agencies. It is our plan to pursue the KBOR Statewide alignment of the Industrial Maintenance Technology, CIP 47.0303, through the Technical Education Authority.

Course Prefix/ #	Course Title	SCH	Prereq.
IMT 100	OSHA 10 General Industry	1	Co-req. IMT 105
	The OSHA 10 Safety Course is a training program that is intended training employees on the essential topics related to work place safety and health. The program increases trainee knowledge about workplace hazards, their rights as employees and their contribution to the workforce.		
IMT 105	AC/DC Circuits	4	Co-req. IMT 100
	AC/DC circuits address the basics of direct and alternating current circuits.		
IMT 110	Mechanical Systems	3	None.
	This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment, teaches basic industrial application of mechanical principles with emphasis on power transmission and specific mechanical components. Students will also design basic mechanical transmission systems using chains, v-belts and gears.		
IMT 115	Mechanical Systems Reliability	3	IMT 100, IMT 105, IMT 110.
	This course provides understanding of mechanical energy transmission concepts along with lab experience to operate, install, analyze performance, and design mechanical drive systems using right angle gears, bearings and couplings.		

	Students learn how to setup and operate laser shaft alignment and apply vibration analysis to various power transmission systems.		
IMT 120	Introduction to Mechatronics	3	IMT 100, IMT 105, IMT 110.
	As an Introduction to Mechatronics, this course aims to relay foundational information and develop hands-on skills in the areas of Mechanical, Electrical, and Control Technology. Students will develop competencies to operate and maintain pneumatics, electricity, sensors, actuators, and controls. Utilizing real-world automation devices students will also gain additional skills in STEM (Science, Technology, Engineering, and Math). These skills that are at the core of automation, production, and manufacturing are in high demand. At the conclusion of the course, students will be prepared to enter into high levels of Mechatronics and Industry 4.0 training, as well as filling much needed career positions such as certified production technicians and/or operators.		
IMT 125	Programmable Logic Controllers (PLC)	3	IMT 115, IMT 120.
	This course examines types, installation and troubleshooting of programmable logic controllers (PLC). Hardware and programming aspects, as well as ladder logic symbols and operations necessary to develop a PLC program are covered in this course.		
IMT 130	Fluid Power I	3	IMT 115, IMT 120.
	This course examines theory, applications and operation of industrial hydraulic and pneumatic systems. The inspection, maintenance and repair of the various components are covered in this course. Interpretation of the various schematic symbols used in hydraulic and pneumatic circuit diagrams will be discussed.		
IMT 135	Fluid Power II	3	IMT 115, IMT 120.
	"Pneumatics" course provides an in-depth understanding of pneumatic systems used in industrial applications. This course covers the fundamental principles of pneumatics, the design and operation of pneumatic systems, and the application of pneumatic technology in various industrial settings. Students will gain both theoretical knowledge and practical skills necessary to work with pneumatic systems effectively.		
IMT 140	Fundamentals of Motor Control	3	IMT 125, IMT 130, IMT 135.
	This course introduces the fundamental principles and applications of motor controls. Students will learn about various types of motors, control systems, and practical techniques for designing and implementing motor control systems. Emphasis is placed on understanding the operation, control, and maintenance of different motor types.		
IMT 145	Variable Speed Motor Control	3	IMT 125, IMT 130, IMT 135.
	This course provides a comprehensive introduction to variable speed motor control systems, focusing on the principles, configuration, and implementation of Variable Frequency Drives (VFDs), servo drives, and other speed control technologies. Students will learn how to design and apply variable speed control solutions to enhance motor performance, improve energy efficiency, and optimize system operation.		
IMT 150	Industrial Process Control	3	IMT 125, IMT 130, IMT 135.
	This course provides understanding of different types of process control systems like temperature, flow and level control. The course includes process control principles, thermocouples, RTD's, temperature measurement devices, ON/Off temperature controlled, programmable process heat controllers, transmitters, process loop test and operate system found in industrial application.		
IMT 155	Occupational Work Experience	3	IMT 140, IMT 145, IMT 150
	Occupational Work experience will give students an opportunity to work in a business, nonprofit or governmental employment setting and apply competencies achieved in previous courses. Students will acquire a sense of		

	what the expectations are in the professional setting. Each student will be evaluated by the instructor and the supervisor in the employment setting.		
BUS 185	Business Ethics & Human Relations	3	
	This course introduces contemporary and controversial ethical issues facing the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. The course emphasizes employability skills such as communication, work habits and attitudes, ethics, conflict management, motivation and problem solving, self-concept, perception, self-awareness, personality, values and communications.		None
BUS 125	Business Communication	3	
	This course covers the role of communication in the business environment and focuses on the most effective methods for creating, sending, and receiving messages. This involves the use of effective oral and written communication skills and writing and evaluating business documents using the principles of correct style, organization, and format.		None
BUS 126	Introduction to Business	3	
	This course is a foundation course on business and its importance in a free market economy and includes a study of types of business ownership and operations. Business terminology is used to understand and interpret business news and information.		None
ACC 100	Business Accounting	3	
	Business Accounting includes the theory and practice associated with double entry accounting. Special emphasis is placed on the preparation of the documents necessary to complete the accounting cycle. Topics include: transactions, journals, financial statements, schedules, adjustments/closing entries, accounting cycle, cash control, bank reconciliation, and payroll.		None
BUS 111	Personal Finance	3	
	This course focuses on basic skills in the management of money with an emphasis on the viewpoint of the individual. Topics covered include budgeting, bank accounts, credit cards, borrowing, real estate and housing, transportation, savings, investments, insurance, taxation, retirement, and estate planning.		None
BUS 255	Principles of Management	3	
	The course teaches the basic components of management: planning, organizing, leading, and controlling. This course will focus on the fundamentals of management as they are practiced today.		None
CIS 116	Spreadsheet Management	2	
	This course covers intermediate-level concepts of spreadsheet software. Using typical business scenarios, the student will perform "what-if" analyses, manage data in worksheets with tables and database functions, and use multiple worksheets to build consolidated statements. The applications and principles learned in this course are relevant to any career field.		CIS100 Software Applications with a grade of C or higher
CIS 126	Database Management	2	
	Database management includes designing and creating a database; adding, changing and deleting records; creating forms and reports, including custom forms and reports; changing structures; building relationships and lookup fields; using query wizards and advanced query techniques; macros.		CIS100 Software Applications with a grade of C or higher
COM 105	English Composition I – KRSN ENG1010	3	
	English Composition I is an introduction to expository writing emphasizing expression of ideas, structure, organization, development, and grammatical correctness. The course offers practice in researching, revising, and editing.		Meet placement guidelines
COM 110	Technical Writing	3	
	This course is an introduction to professional and technical writing used in the workplace. The class offers practice in document design and editing. The types of correspondence include memos, letters, e-mail, reports, and instructional		Meet placement guidelines

	manuals. The course will focus on clarity, conciseness, document design, organization, audience recognition, audience involvement, and accuracy. Collaboration and teamwork is stressed. Presentations will be practiced during class.		
MAT 109	Technical Mathematics II	3	Meet placement guidelines
	This is an algebra-based mathematics course that focuses on technical applications. Topics include graphing linear equations, systems of linear equations, polynomials, factoring polynomials, quadratic equations, right triangle trigonometry and trigonometry with any angle. This course is designed to provide students with the critical thinking needed for solving complex technical problems.		
MAT 110	Intermediate Algebra	3	Meet placement guidelines
	This course is designed for students who have only one year of high school algebra, are inadequately prepared for College Algebra, or score in the prescribed range on the ASSET/COMPASS exams. Topics covered will include Number Systems, Linear Equations and Inequalities, Lines, Systems of Linear Equations and Inequalities, Polynomials, Exponents, Rational Expressions and Quadratic Equations.		
COM 116	Interpersonal Communications	3	Meet placement guidelines
	Interpersonal Communications is a course that emphasis verbal and non-verbal communication between and among individuals and small groups. Both personal and professional communication will be studied.		
CIS 100	Software Applications	3	None
	This course will enable students to work with application software in a career setting or for personal use. Using a project-based approach, students develop an introductory-level competency in word processing, spreadsheet, database, and presentation software. Computer concepts are covered as well.		

Program of Study/Degree Plan

A.A.S Degree in Industrial Maintenance Technology

60 Credit Hours

36 Technical Specialty Credits

15 General Education Credits

9 Technical Elective Credits

Fall Semester – Year 1		
IMT 100	OSHA 10	1 SCH
IMT 105	AC/DC Circuits	4 SCH
IMT 110	Mechanical Systems	3 SCH
IMT 115	Mechanical Systems Reliability	3 SCH
IMT 120	Introduction to Mechatronics	3 SCH
Total:		14 SCH
Spring Semester – Year 1		
IMT 125	Programmable Logic Controllers (PLC)	3 SCH
IMT 130	Fluid Power I	3 SCH
IMT 135	Fluid Power II	3 SCH
IMT 140	Fundamentals of Motor Controls	3 SCH
IMT 145	Variable Speed Motor Controls	3 SCH
IMT 150	Industrial Process Control	3 SCH
Total:		18 SCH
Summer Semester – Year 1		
IMT 155	Occupational Work Experience	4 SCH
Total:		4 SCH
Fall Semester – Year 2		
GEN	General Education Electives	9 SCH
TECH	Technical Electives	3 SCH
Total:		12 SCH
Spring Semester – Year 2		
GEN	General Education Electives	6 SCH
TECH	Technical Electives	6 SCH
Total:		12 SCH

Certificate B in Industrial Maintenance Technology

38 Credit Hours

38 Technical Specialty Credits

6 General Education Credits

Fall Semester – Year 1		
IMT 100	OSHA 10	1 SCH
IMT 105	AC/DC Circuits	4 SCH
IMT 110	Mechanical Systems	3 SCH
IMT 115	Mechanical Systems Reliability	3 SCH
IMT 120	Introduction to Mechatronics	3 SCH
Total:		14 SCH
Spring Semester – Year 1		
IMT 125	Programmable Logic Controllers (PLC)	3 SCH
IMT 130	Fluid Power I	3 SCH
IMT 135	Fluid Power II	3 SCH
IMT 140	Fundamentals of Motor Controls	3 SCH
IMT 145	Variable Speed Motor Controls	3 SCH
IMT 150	Industrial Process Control	3 SCH
Total:		18 SCH
Fall Semester – Year 2		
COM 116	Interpersonal Communications	3 SCH
MAT 101	Technical Math I	3 SCH
Total:		6 SCH

Certificate A in Industrial Maintenance Technology

20 Technical Specialty Credits

6 General Education Credits

Fall Semester – Year 1		
IMT 100	OSHA 10	1 SCH
IMT 105	AC/DC Circuits	4 SCH
IMT 110	Mechanical Systems	3 SCH
IMT 115	Mechanical Systems Reliability	3 SCH
IMT 120	Introduction to Mechatronics	3 SCH
Total:		14 SCH
Spring Semester – Year 1		
COM 116	Interpersonal Communications	3 SCH
MAT 101	Technical Math I	3 SCH
Total:		6 SCH

No accreditation is available at this time for the Industrial Maintenance Technology program. Certifications provided through the National Coalition of Certification Centers (NC3) alongside the Certified Maintenance and Reliability Technician certification through the Society for Maintenance and Reliability Professionals.

Faculty

Credentials for teaching in the Industrial Maintenance Technology Program are the same as for those who are employed for any position as a faculty member, including education, training, and/or industry experience in the topic areas taught. The instructor will hold a degree one level higher than the program degree when possible or be willing to obtain said degree within a prescribed time period. The instructor must possess or be eligible to obtain certification commensurate with those required by the industry to perform duties at or above the level taught within the program. Faculty will also undergo regular evaluation from administration. The Instructor Evaluation form can be found in **Attachment B**.

Cost and Funding for Proposed Program

In October of 2020, Manhattan Tech was awarded the Higher Education Advanced Manufacturing & Information Technology Equipment Grant, totaling \$366,200. The purpose of the grant was to outfit the Industrial Engineering Technology Lab with Industry 4.0 level FESTO equipment. The equipment requested included a compact Industry 4.0 learning system from FESTO Didactic, software for PLC programs for 6 users, as well as laptops for the lab. After the Higher Education Advanced Manufacturing & Information Technology Equipment Grant had been used, the program relies on student tuition and fees and donations from the BILT.

MATC is prepared to support the new IMT Program in the following areas:

- Advising services. 1 admissions director, 1 vice president of student services, 2 counselors will be available for IET Program advising.
- Laboratory and Instructional Space.
- Instructional Equipment and Supplies. All equipment that was formerly used for IET will be utilized in IMT, alongside new equipment.
- Teaching and Learning Center. Students have access to MATC's library that has access to several resource databases as well as Kansas State University's library. Through a data management system at MATC, students are able to access library resources via the Internet from wherever they are located.
- See the **CA-1a form** in **Attachment C**.
- **Additional cost and funding documents to include as needed:**
 - See the **CA-1d form** in **Attachment E** for the request for KS Promise Act eligibility.

Program Review and Assessment

Faculty and administration review the effectiveness of individual instructional programs on a three-year rotational basis. Such review may lead to recommendations for modifications of practice, changes in content and courses, and expansion or discontinuance of the program of instruction. Areas of the program that are reviewed specifically include mission, objectives of the

program, and learning outcomes; relevance of curriculum; budgetary requirements of the program; enrollment, graduation, and placement data, including wages; and any other items that are unique to the program being reviewed. New programs are reviewed annually in a modified form and three years after the initial introduction of the program.

See **Attachment F** for the Program Review document. The program faculty will complete the program review, review findings with their direct supervisor, and present finalized review to the Board of Directors.

Program Approval at the Institution Level

Program Advisory Committee. The minutes of the meeting at the full curriculum was approved by the BILT on October 18, 2024 are in **Attachment G**.

MATC Curriculum Committee. The MATC Curriculum Committee approved the course outlines for all Industrial Maintenance Technology courses and program at the September 13, 2024 meeting. Minutes provided in **Attachment H**.

MATC Board Members. The MATC governing board approved the curriculum and new program at the meeting on September 24, 2024. Minutes provided in **Attachment I**.

Program Proposal Submission

- Please enter proposed program into the Kansas Higher Education Data System (KHEDS)
- Please create a PDF of all documents, and submit the completed application to the following:

Charmine Chambers
Director for Workforce Development
cchambers@ksbor.org

Crystal Roberts
Associate Director for Workforce Development
croberts@ksbor.org

Nicholas Moats, P.E.
President
KG Moats & Sons Engineering Inc.
27010 Highway 24
Saint Mary's, KS 66536
nmoats@kgmoats.com
785-437-2021
February 27, 2025

Dear Dr. Genandt,

I am writing to express my wholehearted support for the Industrial Maintenance Technologies program at Manhattan Area Technical College. As the president at K.G. Moats & Sons Engineering, I recognize the profound impact that this program will have on equipping students with the knowledge and skills necessary to succeed in an increasingly technical and dynamic workforce.

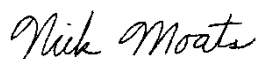
At K.G. Moats & Sons Engineering, we understand the importance of fostering educational opportunities that align with industry needs. We are committed to supporting the Industrial Maintenance Technologies program in the following ways:

- Reviewing and advising on course content and educational objectives to ensure they meet current industry standards.
- Assisting with the development and implementation of relevant industry credentials and certifications that enhance employability.
- Provide input and review the facilities and equipment, ensuring students have access to state-of-the-art tools for their education. Additionally, the institution will be given priority when valuable equipment or materials are available as donations from our company.
- Providing internships, plant tours, and field experiences to give students real-world insights and hands-on learning.
- Supporting job placement for graduates by offering career opportunities and providing feedback on workforce trends and needs.
- Promoting the program through various media outlets and establishing strategic partnerships with other businesses in the region.

We are confident that the Industrial Maintenance Technologies program will play a key role in developing a skilled and diverse workforce, capable of addressing the evolving demands of our industry. We are excited about the opportunity to collaborate with Manhattan Area Technical College and to contribute to the success of this vital initiative.

Thank you for considering our support. We look forward to a successful partnership.

Sincerely,



Nicholas Moats, P.E.
President
KG Moats & Sons Engineering Inc.

Dear Dr. Genandt,

We are pleased to provide this letter of support for Manhattan Area Technical College in your efforts to develop a much-needed curriculum focused on Industrial Maintenance Technologies. The program's course descriptions, curriculum outline, and strategic vision for growth align closely with many of the workforce needs at the Technology Development Institute (TDI) at Kansas State University and those whom we serve as industrial clients.

We are particularly enthusiastic about the program's focus on hands-on technical training, modern maintenance technologies, and collaboration with industry partners.

In the technology development and manufacturing sectors, starting salaries for graduates with these credentials typically range between \$45,000 and \$65,000, with approximately 1,200 job openings across Kansas. At TDI, we anticipate hiring 2-5 employees with these skills over the next three years. In addition, we work with a wide range of industrial clients across various industries who are actively seeking skilled workers in Industrial Maintenance Technologies.

We support the development of this program because it addresses a critical skills gap in the industry and ensures a pipeline of qualified individuals who can adapt to the latest advancements in maintenance and manufacturing technologies.

Please let us know how we can further assist.

Best regards,

Jacob Picolet

Jacob Picolet | Sr. Engineer
510 McCall Road | Manhattan KS 66502
Direct 785-532-1652 | jpicolet@ksu.edu | www.ksu.edu/tdi

Darren Fair
Sr. Manager Robotics& Automation
Textron Aviation
1 Cessna BLVD
Wichita, KS, 67215
Dfair@txtav.com
316-347-1493
3/2/2025

Dear Dr. Genandt,

I am writing to express my wholehearted support for the Industrial Maintenance Technologies program at Manhattan Area Technical College. As a **Sr. Manager Robotics & Automation** at **Textron Aviation**, I recognize the profound impact that this program will have on equipping students with the knowledge and skills necessary to succeed in an increasingly technical and dynamic workforce.

At **Textron Aviation**, we understand the importance of fostering educational opportunities that align with industry needs. We are committed to supporting the Industrial Maintenance Technologies program in the following ways:

- Reviewing and advising on course content and educational objectives to ensure they meet current industry standards.
- Assisting with the development and implementation of relevant industry credentials and certifications that enhance employability.
- Provide input and review the facilities and equipment, ensuring students have access to state-of-the-art tools for their education. Additionally, the institution will be given priority when valuable equipment or materials are available as donations from our company.
- Providing internships, plant tours, and field experiences to give students real-world insights and hands-on learning.
- Supporting job placement for graduates by offering career opportunities and providing feedback on workforce trends and needs.
- Promoting the program through various media outlets and establishing strategic partnerships with other businesses in the region.

We are confident that the Industrial Maintenance Technologies program will play a key role in developing a skilled and diverse workforce, capable of addressing the evolving demands of our industry. We are excited about the opportunity to collaborate with Manhattan Area Technical College and to contribute to the success of this vital initiative.

Thank you for considering our support. We look forward to a successful partnership.

Sincerely,
Darren Fair
Sr. Manager Robotics& Automation
Textron Aviation

Dear Dr. Genandt,

We are pleased to provide this letter of support for the Manhattan Area Technical College in your pursuit to build an important and much needed education curriculum focused on Industrial Maintenance Technologies. The curriculum outline, course descriptions, and strategic vision for growth that you present are aligned with many of our workforce needs at Radiation Detection Technologies, Inc.

We are particularly enthusiastic about the program's emphasis on automation, integration, and safety.

In our industry of research and manufacturing, starting salaries for graduates with these credentials can range between \$40,000 and \$65,000, with about 9,000 current job openings across Kansas. We anticipate hiring around 4 employees for our company with such skills over the next three years, and we envision needing ongoing training on IMT topics for about 2 employees each year.

Additionally, we support development of this new program because the need for well trained, motivated local talent will continue to increase with the growth of new companies moving to Kansas and current companies needing to replace an aging workforce.

Let us know how else we might help.

Best regards,

Neal Strathman

Semiconductor Technician

Radiation Detection Technologies, Inc.

Greg Knabe
COO
Bev-Hub
5960 Dry Hop Circle
Manhattan, KS 66502
gknabe@bev-hub.com
817-229-7771
3/1/2025

Dear Dr. Genandt,

I am writing to express my wholehearted support for the Industrial Maintenance Technologies program at Manhattan Area Technical College. As a COO at Bev-Hub, I recognize the profound impact that this program will have on equipping students with the knowledge and skills necessary to succeed in an increasingly technical and dynamic workforce.

At Bev-Hub, we understand the importance of fostering educational opportunities that align with industry needs. We are committed to supporting the Industrial Maintenance Technologies program in the following ways:

- Reviewing and advising on course content and educational objectives to ensure they meet current industry standards.
- Assisting with the development and implementation of relevant industry credentials and certifications that enhance employability.
- Provide input and review the facilities and equipment, ensuring students have access to state-of-the-art tools for their education. Additionally, the institution will be given priority when valuable equipment or materials are available as donations from our company.
- Providing internships, plant tours, and field experiences to give students real-world insights and hands-on learning.
- Supporting job placement for graduates by offering career opportunities and providing feedback on workforce trends and needs.
- Promoting the program through various media outlets and establishing strategic partnerships with other businesses in the region.

We are confident that the Industrial Maintenance Technologies program will play a key role in developing a skilled and diverse workforce, capable of addressing the evolving demands of our industry. We are excited about the opportunity to collaborate with Manhattan Area Technical College and to contribute to the success of this vital initiative.

Thank you for considering our support. We look forward to a successful partnership.

Sincerely,
Greg Knabe
COO
Bev-Hub



**Administrative Observation and Evaluation Form
Instructional Assessment Report**

Instructor: _____

Class Observed: _____

Supervisor: _____ Date of Observation/Evaluation: _____

NA = Not Applicable P = Poor F = Fair S = Satisfactory G = Good E = Exceptional

Standard 1: Content Competence	NA	P	F	S	G	E
Keeps current with all certifications, licensure, and trainer requirements						
Maintains content competence through professional development						
Demonstrates and relates subject to real-life situations						
Shares knowledge and experience with students						
Demonstrates and relates subject to real-life situations						
Refers to recent developments in the field when appropriate						

Standard 2: Pedagogical Competence	NA	P	F	S	G	E
Exhibits enthusiasm for teaching, learning, and the content area						
Speaks clearly and at appropriate rate/volume						
Maintains eye contact with students						
Describes objectives for session						
Sequences topics logically; provides verbal cues for transitions						
Ties material/concepts to previous learning						
Integrates lecture, discussion, and exercises						
Uses a variety of teaching strategies; reaches all learning styles (mark all that apply)						
Lecture						
Active learning						
Discussion						
Small group activities						
Role playing						
Demonstration						
Presents material in an organized manner (mark all that apply)						
Overhead						
PowerPoint						
CD/DVD, Video, Internet						
Course LMS site						
White board/SMART Board						
Provides opportunities for learner to use critical thinking						
Uses higher-level questioning techniques						
Makes session interesting						
Reviews main points at end of session						
Prepares students for next session						
Demonstrates self-confidence and evidence that instructor is in control of classroom						

Standard 4: Student Development	NA	P	F	S	G	E
Invites students to share their knowledge and experience						
Cultivates a classroom/program environment of respect, fairness, and non-discrimination						
Uses humor and/or anecdotes appropriately						
Knows students' names and uses them						
Displays genuine concern for student development outside the classroom						
Uses positive reinforcement/constructive criticism						

Standard 6: Confidentiality	NA	P	F	S	G	E
Manages student records, grades, and communications in an appropriate manner						
Deals with classroom disruption effectively, respectfully, and privately						
Adheres to privacy laws in regard to FERPA, HIPAA & ADA						
Does not disclose confidential information regarding MATC						

Standard 7: Respect for Colleagues	NA	P	F	S	G	E
Consistently provides assistance to other employees when a reasonable request is made						
Maintains a clean, orderly, and safe working environment at all times						
Avoids gossip or other behavior that is detrimental to another individual and which may impact employee's or students' ability to function effectively.						
Maintains positive communication and interaction with students and guests						
Engages in positive interaction and communication with fellow employees						

Standard 8: Valid Assessment of Students	NA	P	F	S	G	E
Maintains accurate and complete gradebook; submits grades/rosters per Registrar requirements						
Provides regular feedback on student progress						
Coursework is graded objectively and without bias						
Maintains required Canvas elements (gradebook, schedule, assignments, etc.)						
Returns graded materials within a reasonable time frame						
Completes required MATC Core Ability Assessments on time and to MATC Assessment Committee standards						

Standard 9: Respect for Institution	NA	P	F	S	G	E
Maintains and is available during scheduled office hours						
Responds to messages, emails, and other forms of communication from co-workers, students, supervisors, and community members						
Submits reports, Program Review, forms, and requests in an accurate and timely manner						
Adheres to all college procedures and guidelines						
Is a positive ambassador for MATC, Students, and Co-workers						
Is fiscally responsible with departmental budgets, purchasing, and receipts						
Is a good custodian of equipment and supplies						

Standard 10: Institutional Contribution	NA	P	F	S	G	E
Actively communicates, collaborates, and builds relationships with PAC/BILT team						
Actively participates in accreditation activities and documentation						
Active participant in MATC governance committees						
Attentive and active participant during fall and spring In-Service sessions						
Volunteer for community outreach (blessing box, Tulip festival, campus events, etc.)						
Participates in student recruitment (HS visits, campus tours, etc.)						

Clinical/Lab Work (if applicable)	NA	P	F	S	G	E
Clearly states objectives for lab/clinical						
Allows adequate time for preparation of assignments						
Assignments are fair and challenging						
Clinical/lab assignments are varied and relate to theory						
Checks on lab/clinical progress and provides clarification, as needed						
Ensures that safety procedures are followed at all times						
Pre- and post-conferences are directed toward integration of theory and practice						
Provides feedback on individual student progress						

Supervisor Comments:

Instructor Comments/Goals/Professional Development Needs:

Signature of Supervisor: _____ Date: _____

Signature of Instructor: _____ Date: _____

KBOR Fiscal Summary for Proposed Academic Programs

CA-1a Form (2020)

Institution: Manhattan Area Technical College

Proposed Program: Industrial Maintenance Technology

<u>IMPLEMENTATION COSTS</u>				
Part I. Anticipated Enrollment			Implementation Year	
Please state how many students/credit hours are expected during the initial year of the program?				
			Full-Time	Part-Time
A. Headcount:			8	
Part II. Initial Budget			Implementation Year	
A. Faculty			Existing:	New:
Full-time	#		\$61,600	\$
Part-time/Adjunct	#		\$30,800	\$
			Amount	Funding Source
B. Equipment required for program			\$379,070	MATC general
C. Tools and/or supplies required for the program			\$14,400	Student Fees
D. Instructional Supplies and Materials			\$10,000	Student Fees
E. Facility requirements, including facility modifications and/or classroom renovations			\$0	
F. Technology and/or Software			\$15,780	MATC General
G. Other (Please identify; add lines as required)			\$0	0
Total for Implementation Year			\$511,650	

<u>PROGRAM SUSTAINABILITY COSTS (Second and Third Years)</u>				
Part I. Program Enrollment			Second and Third Years	
Please state how many students/credit hours are expected during the first two years of the program?				
			Full-Time	Part-Time
A. Headcount:			16	--
Part II. Ongoing Program Costs			First Two Years	
A. Faculty			Existing:	New:
Full-time	#1		\$54,600	\$
Part-time	#0		\$27,000	\$
			Amount	Funding Source
B. Equipment required for program			\$0	Already purchased
C. Tools and/or supplies required for the program			\$0	Already purchased
D. Instructional Supplies and Materials			\$0	Already purchased
E. Facility requirements, including facility modifications and/or classroom renovations			\$0	none required
F. Technology and/or Software			\$0	Already purchased
G. Other (Please identify; add lines as required)			\$0	
Total for Program Sustainability			\$81,600	

Kansas Promise Eligibility Request Form

CA-1d Form (2022)

This application should be used for new programs (currently in the program approval process) or existing programs the institution would like reviewed for Kansas Promise eligibility.

Program Eligibility

Per statutory language (Section 28), a “promise eligible program” means any two-year associate degree program or career and technical education certificate or stand-alone program offered by an eligible postsecondary educational institution that is:

- 1) approved by the Board of Regents;
- 2) high wage, high demand or critical need; and
- 3) identified as a “promise eligible program” by the Board of Regents pursuant to [K.S.A. 2021 Supp. 74-32,272](#):
 - Information Technology and Security
 - Mental and Physical Healthcare
 - Advanced Manufacturing and Building Trades
 - Early Childhood Education and Development

Section 29 (9d), states that the Board of Regents may designate an associate degree transfer program as an eligible program only if such program is included in:

- 1) An established 2+2 agreement with a Kansas four-year postsecondary education institution; or
- 2) An articulation agreement with a Kansas four-year postsecondary educational institution and is part of an established degree pathway that allows a student to transfer at least 60 credit hours from the eligible postsecondary educational institution to a four-year postsecondary education institution for the completion of an additional 60 credit hours toward a bachelor’s degree.

Section 30 states an eligible postsecondary educational institution may designate an additional field of study to meet local employment needs if the promise eligible programs within this field are two-year associate degree programs or career and technical education certificate or stand-alone programs approved by the Board of Regents that correspond to jobs that are high wage, high demand, or critical need in the community from one of the following fields:

- 1) Agriculture;
- 2) Food and Natural Resources;
- 3) Education and Training;
- 4) Law, Public Safety, Corrections, and Security; or
- 5) Distribution and Logistics

Name of Institution	Manhattan Area Technical
Name, title, and email of person responsible for Academic program	Casey Field, Student Success Coordinator 785-320-4586, caseyfield@manhattantech.edu
Name, title, and email of Financial Aid contact	Laura Weiss-Cook, Director of Financial Aid lauraweisscook@manhattantech.edu

Kansas Promise Eligibility Request Form

CA-1d Form (2022)

Advanced Manufacturing and Building Trades				
CIP Code	Program Name	High Wage, High Demand, or Critical Need	Type of Award (AAS, AA, AS, AGS, Certificate)	Scholarship Effective Date
47.0303	Industrial Maintenance Technology	High Wage, High Demand	AAS, Certificate	Fall 2025

**If any programs are claiming “critical need” status, please provide supporting documentation:

--

Signature of College Official *Kerri Bellamy* Date 3/20/2025

Signature of KBOR Official _____ Date _____

Program Review Report for AY 24-25

Program Name	
Does the catalog program description still accurately represent your program to external constituents?	
How does your program meet the mission and vision of MATC?	
Program Accreditation or Certifications	<p><i>Discuss the results of the most recent accreditation and plans for addressing any deficiencies or recommendations. Please identify the next accreditation visit.</i></p> <p><i>If program is not accredited, please identify any certification and certification alignments that exist. (i.e. NCCER, AWS, Military alignment, MOS, CCNA, RedHat)</i></p>
Full-Time Faculty	List full-time instructors and classes taught
Adjunct Faculty	List adjunct instructors and classes taught
Co-curricular Activities	<i>Co-curricular refers to activities, programs, and learning experiences that reinforce MATC's mission, values, and complements the formal curriculum. Co-curricular activities support student development outside of the classroom. (i.e. student organizations, internships, attending PAC meetings, and service projects)</i>
Advisory Committee Involvement	<p>Current members including their title, organization, phone number, email, number of years on committee, contributions to the program (guest speaker, donations, internships, etc.)</p> <p><i>Provide documented evidence of PAC validating program outcomes and recommendations from the PAC related to program needs. (i.e. PAC meeting minutes)</i></p>
Gifts in Kind or Donations And new equipment purchases	<p>Name of donor/company</p> <p>Specifically what was donated</p> <p>Value of donation - estimate the value and identify what the college did <u>not</u> have to spend for an equivalent purchase.</p>

Program Review Report for AY 24-25

Certificates and Degrees Awarded	<p>Certificate(s) – name of certificate and number of credit hours</p> <p>A.A.S. degree requirements</p> <p><i>Discuss the data provided related to number of students in program and retention/completion. Provided an analysis regarding the number of students completing the program within 150% of normal time (A.A.S. degree – 3 years; Certificate – 1.5 years).</i></p> <p><i>Discuss employment placement evidence: number of students placed into jobs related to the program of study, student/employer feedback on satisfaction of their preparation from MATC, longevity/advancement of graduates within their program of study and job placement, number of students who were successful with gaining related employment who did not complete their program of study.</i></p>
Curriculum Review	<i>Provide a narrative identifying the significant program changes since last program review</i>
Program Learning Outcomes	<p>Map course outcomes to program outcomes – provide matrix as an attachment</p> <p>Map KBOR Core Abilities to program/course outcomes</p>
Grade Distribution	Registrar/IR will provide this data; <i>provide an analysis of the grade distribution</i>
Assessment Results	<p>Program and Course</p> <p>MATC Core Abilities assessment results –</p> <p>IR will provide MATC Core Abilities results (Oral Communication, Written Communication, Problem Solving/Critical Thinking, Quantitative Literacy) for the most recent years.</p> <p>End-of-program assessment results</p> <p>Other external assessment results</p> <p><i>Provide narrative discussing what you learned from the assessment data and how you will use the data to make improvements/changes</i></p>
Delivery Methods	Describe how you use delivery method to deliver the classes. (LMS, Canvas, Online lectures, lab, face to face, etc.)
Recruiting, Retention, Persistence, and Completion	<i>Describe the recruiting efforts that you have utilized as well as the efforts that you have implemented to affect retention, persistence, and completion of your students. Why should students pick MATC over other programs?</i>
Job Outlook – Demand for Program	
Resources Needed	<ol style="list-style-type: none"> 1. To maintain program quality 2. To advance program quality and value to regional employers

Program Review Report for AY 24-25

S.W.O.T. Analysis – Completed with PAC/BILT and any appropriate external group.

*Internal vs External treats/opportunities, new programs in the area, what makes you different from other programs nearby, etc.

Strengths

Weaknesses

Opportunities

Threats

Analysis of S.W.O.T.

(please provide a short narrative about the SWOT)

Program Review Report for AY 21-22



Faculty Credentials & Professional Development

Faculty Name	
Credentials	
Professional Development Activity	
Professional Development Reflection	



Program Review
Program Name
AY 2024-2025

CIP Code(s):
00.0000 CIP Description

SOC Code(s):
00-0000 SOC Description
00-0000 SOC Description

Degree(s) / Certificate(s) Awarded:
AAS xx credit hours
Certificate B xx credit hours
Certificate A xx credit hours

Program Accreditation(s):
none

Curriculum Alignment:
Program is [aligned](#) with the Kansas Board of Regents (KBOR). A [program alignment map](#), last updated in March 2021, is available.

Third-Party Credentials / TSA and Credential List
MATC offers the following third-party credentials that are approved by KBOR/TEA for submission on the KBOR Follow Up report.

Award Level	Credential ID	Credential Name	WIOA
All			
All			
All			
All			
All			
All			
All			
All			
All			
All			
All			
All			
All			

Not accepted by KBOR on the Follow Up report, but offered by MATC:
n/a

All awards accepted by KBOR on Follow Up, those greyed out are not offered at MATC currently; additional credentials available at different award levels.

[illegible]

Financial Information						
Revenue						
	AY 22-23		AY 21-22		AY 20-21	
Tuition	x,xxx SCH @ \$xxx/CH	\$0	x,xxx SCH @ \$xxx/CH	\$0	x,xxx SCH @ \$xxx/CH	\$0
Program/Course Fees		\$0		\$0		\$0
Institutional Fees		\$0		\$0		\$0
State Aid		\$0		\$0		\$0
Total Revenue		\$0		\$0		\$0
Grant/External Funding						
	AY 22-23		AY 21-22		AY 20-21	
Perkins						
Equipment		\$0		\$0		\$0
Professional Development		\$0		\$0		\$0
Capital Outlay		\$0		\$0		\$0
Total External Funding		\$0		\$0		\$0
Expenses						
	AY 22-23		AY 21-22		AY 20-21	
Teaching Salary & Benefits		\$0		\$0		\$0
Program/Course Supplies		\$0		\$0		\$0
Professional Development		\$0		\$0		\$0
Equipment Purchased		\$0		\$0		\$0
Other Expenses		\$0		\$0		\$0
Total Expenses		\$0		\$0		\$0
Program Contribution to Indirect Costs		\$0		\$0		\$0
Supplemental Program Information						
	AY 22-23		AY 21-22		AY 20-21	
MATC Per Credit Hour of Instruction (direct costs only)		\$0		\$0		\$0
Cost Model Composite Rate (average)						
Total Annual Cost to Students – tuition, lab fees, textbooks, tools, equipment		\$0				

Program Data						
	AY 22-23		AY 21-22		AY 20-21	
Enrollment (Declared Major)	# AAS	# CERTB # CERTA	# AAS	# CERTB # CERTA	# AAS	# CERTB # CERTA
Male/Female Mix	# / # AAS	# / # CERTB # / # CERTA	# / # AAS	# / # CERTB # / # CERTA	# / # AAS	# / # CERTB # / # CERTA
Retention						
1 st to 2 nd Semester Retention						
Number of Graduates ¹						
Associate (AAS)	#		#		#	
Certificate (CERTC)	# CERTB / # CERTA		# CERTB / # CERTA		# CERTB / # CERTA	
Semester Credit Hours Generated ²						
Total Unduplicated Students	#		#		#	
Total SCH (Omit Gen Ed SCH)	#		#		#	
Follow-Up ³						
No. of Students Available	#		#		#	
No. of Students Placed ⁴	#/#	##%	#/#	##%	#/#	##%
No. Placed in Field	#/#	##%	#/#	##%	#/#	##%
Average Wage	###.## / ###.##	###,###	###.##	###,###	###.##	###.## / ###.##
Industry Credentials ⁵						
Number Attempted	#		#		#	
Number Earned	#		#		#	
Students Who Earned a Credential	#/#	##%	#/#	##%	#/#	##%
MATC Core Abilities Assessment ⁶						
Oral Communication						
Written Communication						
Problem Solving/Critical Thinking						
Quantitative Literacy						

¹ KBOR Academic Year Basic Counts report, table 6a

² KBOR Academic Year Registrations file

³ KBOR Follow Up Report / Perkins V Core Indicators of Performance; Average wage = table 7

⁴ Perkins V Core Indicators Report; Placed = Perkins V concentrators who are employed, continuing education, serving in the military, or in a service program as of the 2nd quarter after exist as reported on the KBOR Follow Up Report

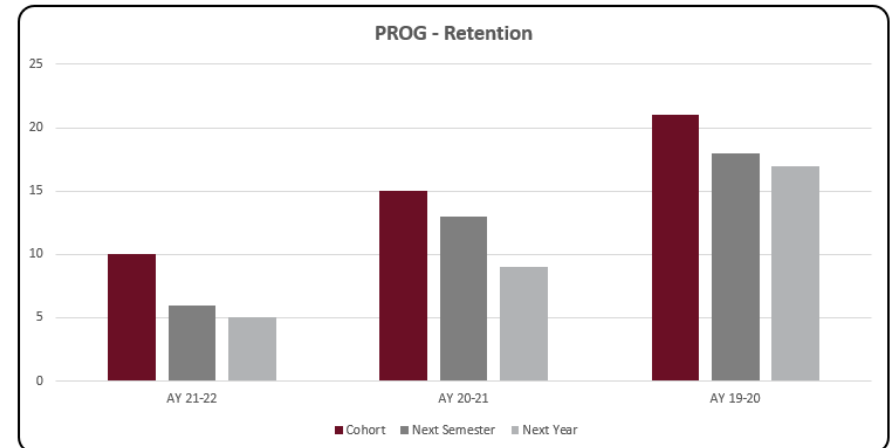
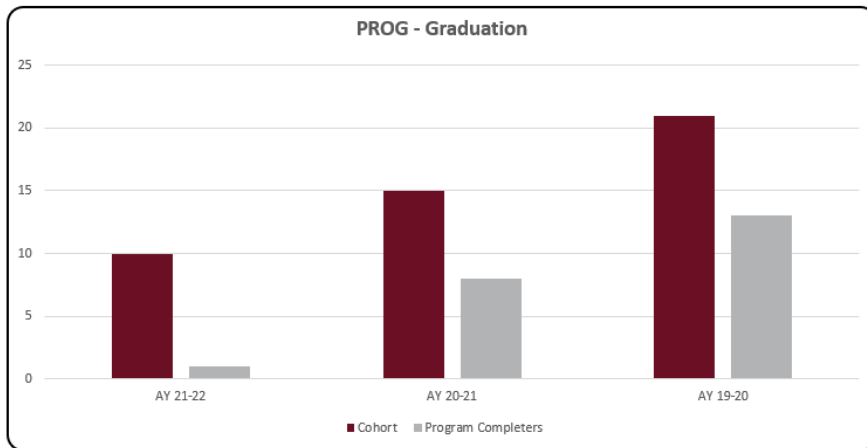
⁵ KBOR Follow Up Report (may be duplicates); Students who earned a credential is from Perkins V Core Indicators of Performance, 2P1

⁶ The department may not have submitted an assessment or submitted it incorrectly for data purposes for this period (indicated by an *); entered MATC averages

Graduation & Retention Information by Cohort

	Cohort	Retention				Graduation Percentage
		Program Completers	MATC Completers	Still Enrolled in Program	Non-Completers	
AY 21-22	10	5	3	2	3	50.00%
AY 20-21	15	10	2	1	4	66.67%
AY 19-20	20	13	0	2	5	65.00%

	Cohort	Retention				
		Next Semester	Next Year	Still Enrolled in Program	Still Enrolled at MATC	Transfer
AY 21-22	10	6	5	4	1	1
AY 20-21	15	13	9	1	0	2
AY 19-20	20	18	17	2	0	4



Notes:

- Cohort determined by first enrollment in ABC 100 course for students with a ABC declared major
- Dropped registrations are excluded from counts while withdrawn registrations are included
- Some students had dual declared majors
- Graduation percentage may increase if those still enrolled complete the program
 - Award Levels for Program Completions (by highest degree earned)
 - AY 19-20 cohort: x AAS / x CERTB
 - AY 20-21 cohort: x AAS / 1 CERTB
 - AY 21-22 cohort: x CERTB
- Transfers:
 - KSU – x
 - Highland CC – x
 - XYZ – x
 - LMN – x
 - OPQ – x
 - RST – x

Kansas Wage Survey, 2021 Edition, Local Areas

[illegible][illegible]

Projected Employment Data

Kansas Wage Survey, 2021 Edition, Projection Regions, 10-year projection

Region: Northeast Kansas

Standard Occupational Classification Code	Occupational Title	Employment	Mean (Average) Hourly	Mean Annual	Entry Level Hourly	Entry Level Annual	Experienced Level Hourly	Experienced Level Annual	Median (Middle) Hourly	Median Annual
00-0000										
00-0000										

Source: Kansas Department of Labor, Labor Market Information Services and the Bureau of Labor Statistics; Occupational Employment Statistics (OES)

Fall 2021 Critical Thinking Problem Solving

[illegible][illegible]

*Industrial Maintenance Technology (IMT)
Professional Advisory Committee (PAC) Meeting Minutes*

**Manhattan Area Technical College
Industrial Maintenance Technologies
Program Advisory Committee Meeting
11:00a-12:00p – ZOOM
10/18/2024**

IMT PAC Membership and Roll Call:

Attending:

Nicholas Moats – K.G. Moats & Sons Engineering Inc.
Jacob Picolet - Kansas State University, Technology Development Institute,
Neil Strathman - Radiation Detection Technologies Inc.
Darren Fair – Textron Aviation
Kerri Bellamy – MATC Dean of Advanced Technologies – Chief Academic Officer
Pamela Imperato –MATC Special Advisor to the President for Strategic Initiatives (recorder)
Mark Miller – MATC IMT Instructor Program Director

Absent:

Jacob Haefner – Technical Education, Advanced Technologies Consultants
Greg Knabe – Bev-Hub
Tanner Messer – Maintenance Superintendent, Technician Michelin Co.
Chris Boxberger – Dean of Outreach and Academic Partnerships

Call to Order:

The meeting of the Professional Advisory Committee (PAC) for the Industrial Maintenance Program was called to order at 11:10 by Mark Miller, IMT Instructor.

Introductions:

Membership in the IMT Advisory Meeting was indicated with those in attendance providing professional and organizational introductions.

Approval of Previous Meeting Minutes

No minutes – First session/Mtg.

OLD Business:

No Old business

NEW Business:

Overview of Program Outcomes:

A description of the IMT Program and Program outcomes were presented by Mark Miller and reviewed by membership.

Indicated was the intent of the Program, review of its content and rationale, and purpose for alignment with the Kansas Board of Regents (KBOR) IMT program structure. Alignment increases options for transferability for students and creates synergy among other Kansas colleges offering the curriculum.

Of note was the indication of the shortage of industrial maintenance technicians and the increasing overlap in roles between technicians and industrial maintenance engineers. Industrial Maintenance has transitioned to an applied engineering focus as advanced technologies like PLC have now become commonplace equipment within production settings.

How the MATC lab supports theoretical concepts by providing opportunities for applied experience to students was indicated to and by members. Similarly, emphasis was placed on the importance of integrating Occupational Work Experience into IMT program curriculum. Noted was how KBOR realignment criterion spurred change to MATC's existing Industrial Engineering program to that of the Industrial Maintenance Technology program now under consideration.

Program Structure:

IMT program Structure was reviewed to include each individual course that comprise the program. The rationale for each course was reviewed through the context of discussion around each course description and relevance to the professional setting.

Notable was a discussion of the Mechanical System Reliability course, found in the Associate's degree and Certificates A and B of the program as proposed. Indicated was how the Manufacturing industry is moving towards a proactive maintenance versus breakdown then repair philosophy. This change in philosophy and focus has been embedded into each course and in the structuring of application-based learning experiences.

The quality and application-based nature of the MATC lab experiences in this program was emphasized as was its purpose in reinforcing theoretical concepts for students.

Indicated was the creation of two certificates, Certificate A and Certificate B for the IMT program. Each option provides students with exit points should they not opt for the Associate's degree. The curriculum for each Certificate was designed to provide students with sufficient training to enhance their employment potential in the industry. Also indicated were the Technical Specialty courses provided to further enhance employability. Specialty courses are comprised of two courses, Interpersonal Communication and Mathematics (Technical Math I or higher). As structured, Certificates A and B comply with the KBOR certificate requirements.

An Occupation Work Experience course has been included in the degree requirements for the program. Students' options include Co-op Programs, Internships or Apprenticeships to fulfill this requirement. The importance of blending work experience which alternates between a period

of academic study was seen as beneficial to helping to reinforce concepts and build confidence in students prior to more intensive experience in the workforce.

Members indicated that we have moved to the era of the Digital Factory with the importance of curriculum supporting this evolution in industrial production and as reflected in the curriculum.

Letters of Support:

It was noted that seven letters of support for the Industrial Maintenance Technology programs have been received and will be included in application materials for program approval.

Members were thanked for their ongoing input as the program has evolved. Members were also thanked for preparing letters of support from their firms to accompany MATC's submission to KBOR and their commitment to help build workforce in our area in this profession.

Regulatory Oversight.

The Dean and Chief Academic Officer Kerri Belamy provided an explanation of the program approval process in the state of Kansas and with our federal accrediting body, the Higher Learning Commission. She noted the importance the State places on students completing their programs of study, whether it be with a certificate or with a degree. This tie to program completion and enhancing employment prospects for students is a priority shared by MATC.

An application packet for the IMT program will be sent to the Kansas Technical Education Authority (TEA), to the Kansas Board of Regents (KBOR) and to the Regarding Certifications Cert A, B and Associates.

Program Endorsement & Discussion:

Member discussion occurred around major employers who are hiring in this field to include a major local employer who particularly focusing on recruiting existing military service members. Also included was discussion of major national food brands located in Topeka and Manhattan-based national manufacturers who will serve as a source of employment for students. Those firms mentioned during conversation include Frito Lay, Mars, Michelin, Manko and Parker Hannifin.

Voice vote for acceptance

A motion was made by Nicholas Moats to approve endorsement of the IMT program. Second by Neil Strathman. Four a yes, No opposed. Motion for approval carried.

Invitation:

A closing invitation was made for members who did not attend the Ribbon Cutting for the Advance Technology Center to stop by for a visit. Instructor Mark Miller invited members to come for a tour or to sit in on a class.

Meeting Adjourned

A motion to adjourn was made by Neal Strathman. Second by Nick Picolet. 4 a yes, none opposed. Motion carried. The meeting was adjourned at 11:48a.

Exhibits:

Industrial Maintenance Technology PowerPoint (attached)

Industrial Maintenance Technology Program Sheet (attached)

Minutes: Curriculum Committee

Date 9/13/2024

Members Present: Marcey Fickbohm (**Chair**), Alex Anderson (**Vice Chair**), Jen Cupery, Deirdre Greeley, Brian Koch, Justin Meuli, Ed Zahler, Laura Weiss-Cook, Steve Davis, Casey Field, Pamela Imperato, Lauren Rust, Kim Davis, Kerri Bellamy

Time: 1500

Guests: Mark Miller from Industrial Maintenance Technology and Lisa Isaacson from Early Childhood Development

Members Absent: Suzanne Duncan

Place: 404

Recorder: Deirdre Greeley

<u>AGENDA ITEM</u>	<u>DISCUSSION</u>	<u>ACTION TAKEN</u>
Call to order		The meeting was called to order at 1510
Acceptance of Minutes	Review of minutes from 8/8/24 meeting	Motion to accept the minutes with the addendum voted upon on 8/22/24: Brian Second: Ed Motion carried
<u>Old Business</u>		
1. None		
<u>New Business</u>		
1. Introduction of new program: Industrial Maintenance Technology	Faculty member Mark Miller introduced the proposed new program Industrial Maintenance Technology. This program is being established to meet current needs identified by our industry partners. This program will offer several academic pathways: Cert A, Cert B, Cert C, and an Associates in Applied Science (AAS) degree.	Motion to approve the new program: Industrial Maintenance Technology: Brian Second: Ed Motion carried
2. New Course Form and Course Outline: IMT 100	New OSHA 10 safety course. Minor changes to form formatting were made.	Motion to approve New Course Form and Course Outline for IMT 100 with changes: Pamela Second: Jen Motion carried
3. New Course Form and Course Outline: IMT 110	This course is titled AC/DC Circuits. Minor changes to grammar and form formatting were made.	Motion to approve New Course Form and Course Outline for IMT 110 with changes: Brian Second: Jen Motion carried

<u>AGENDA ITEM</u>	<u>DISCUSSION</u>	<u>ACTION TAKEN</u>
4. New Course Form and Course Outline: IMT 120	This course is titled Mechanical Systems. Minor changes to the course outline were made.	Motion to approve New Course Form and Course Outline for IMT 120 with changes: Brian Second: Alex Motion carried
5. New Course Form and Course Outline: IMT 130	This course is titled Mechanical Systems Reliability. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 130 with changes: Brian Second: Alex Motion carried
6. New Course Form and Course Outline: IMT 140	This course is titled Mechanical Systems II. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 140 with changes: Brian Second: Laura Motion carried
7. New Course Form and Course Outline: IMT 150	This course is titled Fluid Power I. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 150 with changes: Brian Second: Alex Motion carried
8. New Course Form and Course Outline: IMT 160	This course is titled Fluid Power II. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 160 with changes: Brian Second: Laura Motion carried
9. New Course Form and Course Outline: IMT 200	This course is titled Programmable Logic Controllers (PLC). Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 200 with changes: Brian Second: Steve Motion Carried
10. New Course Form and Course Outline: IMT 210	This course is titled Advanced Sensor Technology. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 210 with changes: Brian Second: Laura Motion carried
11. New Course Form and Course Outline: IMT 220	This course is titled Introduction to Mechatronics. Minor formatting changes were made.	Motion to approve New Course Form and Course Outline for IMT 220 with changes: Brian Second: Ed Motion carried
12. New Course Form and Course Outline: IMT 230	This course is titled Fundamentals of Motor Control. No changes were needed.	Motion to approve New Course Form and Course Outline for IMT 230 as written: Brian Second: Lauren Motion carried

AGENDA ITEM**DISCUSSION****ACTION TAKEN**

- | <u>AGENDA ITEM</u> | <u>DISCUSSION</u> | <u>ACTION TAKEN</u> |
|---|---|--|
| 13. New Course Form and Course Outline: IMT 240 | This course is titled Variable Speed Motor Control. Minor formatting changes were made. | Motion to approve New Course Form and Course Outline for IMT 240 with changes: Brian
Second: Steve
Motion carried |
| 14. New Course Form and Course Outline: IMT 250 | This course is titled Industrial Process Control. Minor formatting changes were made. | Motion to approve New Course Form and Course Outline for IMT 250 with changes: Brian
Second: Laura
Motion carried |
| 15. Introduction of new program: Early Childhood Education | Faculty member Lisa Isaacson introduced the proposed new program Early Childhood Education. This program is being established to meet the community's need for more available childcare in our area. This program will offer two academic pathways: Cert B and an Associates in Applied Science (AAS) degree. | Motion to approve the new program Early Childhood Education: Brian
Second: Pamela
Motion carried |
| 16. New Course Form and Course Outline: ECE 110 | This course is titled Early Childhood Program and Curriculum Planning. Minor changes to course description, learning competencies and formatting were made. | Motion to approve New Course Form and Course Outline for ECE 110 with changes: Brian
Second: Lauren
Motion carried |
| 17. New Course Form and Course Outline: ECE 120 | This course is titled Child Health, Safety, and Nutrition. Minor changes to course description, learning competencies and formatting were made. | Motion to approve New Course Form and Course Outline for ECE 120 with changes: Brian
Second: Jen
Motion carried |
| 18. New Course Form and Course Outline: ECE 130 | This course is titled Infant and Toddler Care and Education. Minor changes to course description, learning competencies and formatting were made. | Motion to approve New Course Form and Course Outline for ECE 130 with changes: Brian
Second: Steve
Motion carried |
| 19. New Course Form and Course Outline: ECE 140 | This course is titled Observing and Interacting with Young Children. No changes were made. | Motion to approve New Course Form and Course Outline for ECE 140 as written: Brian
Second: Steve
Motion carried |
| 20. New Course Form and Course Outline: ECE 150 | This course is titled Childcare Practicum I. No changes were made. | Motion to approve New Course Form and Course Outline for ECE 150 as written: Brian
Second: Steve
Motion carried |

<u>AGENDA ITEM</u>	<u>DISCUSSION</u>	<u>ACTION TAKEN</u>
21. New Course Form and Course Outline: ECE 200	This course is titled Teaching Young Children with Special Needs. Minor changes to learning competencies and formatting were made.	Motion to approve New Course Form and Course Outline for ECE 200 with changes: Brian Second: Steve Motion carried
22. New Course Form and Course Outline: ECE 210	This course is titled Building Family and Community Relations. Minor changes to learning competencies and formatting were made.	Motion to approve New Course Form and Course Outline for ECE 210 with changes: Brian Second: Jen Motion carried
23. New Course Form and Course Outline: ECE 220	This course is titled Early Childhood Language and Literacy. Minor changes to learning competencies and formatting were made.	Motion to approve New Course Form and Course Outline for ECE 220 with changes: Brian Second: Steve Motion carried
24. New Course Form and Course Outline: ECE 230	This course is titled Creative Experiences for Young Children. Minor changes to formatting were made.	Motion to approve New Course Form and Course Outline for ECE 230 with changes: Brian Second: Laura Motion carried
25. New Course Form and Course Outline: ECE 240	This course is titled Childcare Administration. Minor changes to formatting were made.	Motion to approve New Course Form and Course Outline for ECE 240 with changes: Brian Second: Steve Motion carried
26. New Course Form and Course Outline: ECE 250	This course is titled Childcare Practicum II. Minor changes to formatting were made.	Motion to approve New Course Form and Course Outline for ECE 250 with changes: Brian Second: Laura Motion carried

Open Discussion: None

Next Meeting 9-20-24 @ 1500

Agenda Items for Next Meeting:

Approval of New Course Form and Course Outline for ECE 100: Principles of Early Childhood Education	This item was tabled from today's agenda. Because it has an SWT identifier, it will need learning competencies and outcomes from KBOR added.	Tabled
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AGENDA ITEM

DISCUSSION

ACTION TAKEN

Adjournment

The meeting adjourned at 1645

Motion to adjourn: Brian
Second: Laura
Motion carried

Board of Directors Agenda/Minutes

September 24, 2024

5:30p (zoom/live stream)



Attendance:

Board of Directors

Tim Flanary, Chair (Pottawatomie)
John Armbrust (Riley)
Heather Peterson (Pottawatomie)
Leslie Goodwin (Geary)

David Urban, Vice Chair (Riley)
Julie Crimmins (Clay)
Stephanie Pierce (Riley)

Administration/Staff

James Genandt, President/CEO
Josh Gfeller, VP of Operations
Chris Boxberger, Academic Partnerships/Outreach
Neil Ross, Student Services
Suzy Baker, Executive Operations Coordinator, Board Clerk
Addl: Kim Withroder, Lisa Isaacson, David Umazor, Rachel Ohmes

Pam Imperato, Special Advisor to President
Cara Prichard, Chief Financial Officer
Kim Davis, Nursing Ed & Health
Brian Koch, Math Instructor, Chair Faculty Senate

Agenda: (*Items requiring Board action)

1. Call to Order- **Meeting called to order by Tim- 5:30p**

- Adjustments to agenda (made 9.23)
 - Added 2 year academic calendar attachment
 - Edits to the order of General Agenda
 - Removed attachment from Retreat Agenda (revised attachment will be distributed)
 - Added agenda items:
 - Executive Session
 - New & Revised Academic Programs & Board Reviews (3 attachments)
 - Added Marketing report

2. Board of Directors Announcements

- Vice Chair position: **David Urban with majority vote (vote was made electronically prior to mtg)**
- Leslie Goodwin introduction: **6 votes to appoint Leslie as Geary County seat (vote was made electronically prior to mtg)**
- Introduction of new faculty and staff: **Lisa Isaacson, David Umazor**

3. Consent Agenda (*Items requiring Board action)

- Approval of previous month minutes (Aug 2024)* (Attachment 1)
- Approval of previous month check register with threshold expenditures (Aug 2024)* (Attachment 2)
 Approval of Aug minutes + Aug check register- Tim 1st, John 2nd. 7 yes , 0 no - motion carried.
- Organizational Update (Attachment 3)

4. General Agenda (*Items requiring Board action)

- BHE Expenditure report (Attachment 4)- **Josh**
- FY24 Actuals Memo (Attachment 5)- **Cara**
- 2 year Rolling Academic Calendar (Attachment 6)- **Jim, Brian**
- Policy updates:
 - Faculty Senate (Attachment 7)
 - **Brian-** went over the updates to the policy. The policy had not been updated for 4 years. Chair & vice Chair are typically 1 trade faculty and 1 gen ed faculty.
 - **Faculty Senate updates: Brian-** Math pathways- state would like to get rid of intermediate algebra, discussed math requirements & funding.
 - **Marketing Update: Rachel-** Presentation on Marketing & social media. **Suzy will send attachment to the Board. **Chris/Jim-** Purpose of this marketing plan is to reinforce enrollments, staff & faculty involvement, engaging students, making community aware.

Tim made motion to approve Faculty Senate policy. David 1st, Heather 2nd. 7 yes, 0 no - motion carried.

 - Policy 5.1.1 Admissions (Attachment 8)
 - **Neil-** Admissions policy was outdated & needed to be updated. It will need to be edited- Suzy will send the revised document to the board.

Tim made motion to approve Policy 5.1.1. John 1st, Stephanie 2nd. 7 yes, 0 no - motion carried.
- Trailer purchase & Patterson Grant Update
 - **Pam-** thanked the board for the approval of the trailer and updated the board on the submission of the Patterson Grant. Pam explained the plans for the grant if we are awarded, we can inspire the rural communities. End of Nov/early Dec will be the announcement as to if we are funded with the grant. Pam explained we will travel to NC in Nov to pick up the trailer that was purchased. Trailer will be used for marketing, partnering with businesses & grow outside relationships.
 - **Heather-** asked if we have the software or if that will need to be purchased. **Pam-** mentioned the grant will have us partnering with a company. If we do not get the grant we will add these as needed unless our classrooms already have a virtual component. **Jim-** added that Perkins Funds may allow us to use funds if Patterson Grant does not fund this. **Tim-** asked about teachers and if those are our teachers or community teachers. **Pam-** explained that they are the local teachers we will be working with as they are the influencers.
- Building Projects: Front entry project update-
 - **Josh-** explained to new board members that we were having issues with flooding in the front, explained our main entrance project & updates with ADA issues. Repair is now complete except for the signage. Project is still under budget. Furniture will be purchased or made by our departments. **Heather-** suggested partnering with Kstate for design. **Tim-** suggested Manco. **Tim-** asked if there will be a roof or pergola. **Josh-** not at this time but possible future suggestion. Possibly use our construction science department for a build. Will have outdoor wifi & electricity.
 - **Tim-** asked about finishing touches to the new building. **Josh-** mentioned we have some little things to work through but nothing big at this time.
- PAC Dinner & Meeting Oct 3, 5:30-6:30p, location tbd-
 - **Jim-** invited the Board to the PAC dinner & presentation, explained what we will be doing that evening. Suzy will send meeting invite to the Board.
- Discuss Nov & Dec Board meeting dates (normal dates fall during holiday weeks)-
 - **Jim-** proposed Nov/Dec mtg to be combined. Dec 3 or 10- Suzy will send a vote to board.
- New & revised Academic Programs & Board Reviews*
 - Early Childhood Education (Attachment 9)

- Plumbing (Attachment 10)
 - Industrial Maintenance Technology (Attachment 11)
 - Chris- presented documents. Jim- explained we may get some co enrollments for ECE. Program will go Fall 2025, location to be determined.
- Tim motion to accept. Stephanie 1st, John 2nd. 7 yes, 0 no - motion carried.**
- Initial Enrollment Observation-
 - Neil- This is a snapshot of our initial enrollments. 873/855 HC--85,-827 credit hours. Down 85 students, we will have additional student enrollments after the 20th day. Down a little in undergraduate & high school. Increase with Ft Riley, JC and 5 new programs. We are low because a few programs are not active right now. Jim- reported that some community colleges are offering gen eds at \$22 per credit hour. State may give 5 free gen eds to students. This year will be flat or down a bit but with 5 new programs, Ft Riley and JC we will increase. GED & ESL populations 172 students enrolled- regardless of being down in enrollments 78 GED, 94 ESL- this is a huge benefit for our community and may result in those students becoming full MATC students.

5. President's Report

- Update (Attachment 12)- Jim- presented his attachment.

6. Executive Session- Jim, Josh, Chris, Julie, John, Heather, Tim, David, Leslie, Stephanie, Suzy

Tim- called us into Exec Session 7:02. John 1st Heather 2nd. Personnel issues discussed. Tim- called us back into general session at 7:12. Heather 1st, David 2nd.

7. Adjournment

Meetings & Upcoming Events:

- October 14-15, 2024: HLC Visit
- October 17, 2024: Party on the Plaza
- October 29, 2024: Monthly board meeting (location: Wamego campus)
- November Board Meeting: Regular date falls on Nov 26 (Thanksgiving week)
- December Board Meeting: Regular date falls on Dec 31 (New Years Eve)

[Link to Retreat Agenda here](#)