

Faculty Senate Course Form

Effective Date: **Fall 2026**

Submission Date: 9/1/25

Department: TWL

College of: **Technology**

Contact Person: Byron McKay

Create New, Revise, Inactivate, or Reactivate: **Reactivate**

Course #: **TM501**

Course Form:

- Used to create new course numbers or new prefixes.
- Used to change Name, Grading, Hours, Description, Reactivate
- Used to inactivate a course from the current catalog. Courses are never deleted. They are made inactive and can be legislated to become active again.

1. Purpose/Justification for the New course or Changes to existing:
Reactivate and update for Technology Management program

2. Is this related to, and/or affect, any other department/college/unit curricula or programs at Pittsburg State University? *If "Yes", please provide an explanation. Provide documentation of any discussions (e.g. copies of emails, memos, etc.) that have occurred.*

☐ Yes ☒ No

3. Is this course to be considered for General Education?

If "yes" this requirement will need approval of the General Education Committee after the revisions have been approved by Faculty Senate. The General Education Course Approval form will also need to be submitted.

☐ Yes ☒ No

4. Will this course be required of any education majors?

If "yes," this requirement will need approval of the Council for Teacher Education before upload to "College Curriculum Legislation" in SharePoint.

☐ Yes ☒ No

5. Will additional resources or costs be required?

☐ Yes ☒ No

If so, what will be needed?

6. Will any additional course fees be required (e.g. equipment, clothing, travel, licensing, etc.)?

If "yes," complete the Course Fee Form on the Faculty Senate website. It will need to gain approval of the President's Council.

☐ Yes ☒ No

7. Objectives/Student Learning Outcomes for NEW courses only, as it will appear in the syllabus:

Attach with upload.

8. Assessment Strategies (e.g. exams, projects, university rubric, etc.), as it will appear in the syllabus:

Attach with upload.

Course Numbers cannot be changed, only created.

	Existing	New/Proposed
Title:	TM501	
Course Number:	Work Measrmnt & Effency Met	
Credits:	3	
Grading System:	A-F, IN	Select One
Pre/Co-Requisite(s):		
Course Description:	This course explores the principles and practices of work measurement and efficiency methods used in industrial and service environments. Students will learn to conduct time studies, work sampling, motion analysis, and apply lean and ergonomic techniques to improve productivity and process flow. Emphasis is placed on real-world application through data-driven projects, process evaluation, and continuous improvement strategies.	

Authorization Sign-Off

Checklist: Check once verified.

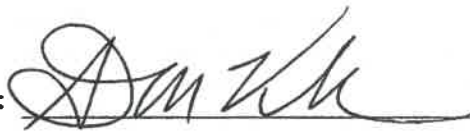
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Required fields completed.
Syllabus attached for new courses
Assignment Strategies Attached

-Approved: Department Chair/Director

Date: 9/9/25

Signature, Chair/Director:



-Approved: College Curriculum Committee

Date: 10/3/25

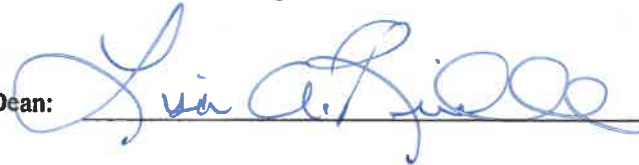
Signature, Committee Chair:



-Approved: Dean of College

Date: 10/7/25

Signature, Dean:



-Approved: Council for Teacher Education (if applicable)

Date: _____

Signature, Council Chair: _____

-Approved: University Undergraduate Curriculum Committee

Date: _____

Signature, Committee Chair: _____

-Approved: Faculty Senate

Date: _____

Signature, Recorder Faculty Senate: _____

Originating Departments(s): After completing this form, please upload it to the SharePoint, within the appropriate College folder, "Preliminary Legislation", to allow for review and questions. Any modifications should be saved as "original file name.v2.docx" and uploaded as well.

Following final College Curriculum Committee approval, please apply the appropriate signatures, and send them to your College Administrator.



**COLLEGE OF TECHNOLOGY
PITTSBURGH STATE UNIVERSITY
2025**

Course Number: TM 501	Title: Work Measurement & Efficiency	
Credit Hours: 3	Course Time Schedule: Online	
Instructor: Dr. Trevor Maiserouille	email: trevor.maiserouille@pittstate.edu	
Office: S214	Office Phone: (620)-235-4425	
	Home Phone: (620)-249-1417 (Text Only)	

Office Hours:

Monday	Tuesday	Wednesday	Thursday
9:00a – 10:00a 1:00p – 2:30p	9:00a – 10:00a 1:00p – 2:00p	9:00a – 10:00a 1:00p – 2:30p	9:00a – 10:00a 1:00p – 2:00p

*There is a chance I might be in a meeting. If I miss you, please email me or write on the whiteboard located on my office door. I could also be in another room in the Crossland Technology Center. If I am, I will write that on my whiteboard.

COURSE DESCRIPTION

This course explores the principles and practices of work measurement and efficiency methods used in industrial and service environments. Students will learn to conduct time studies, work sampling, motion analysis, and apply lean and ergonomic techniques to improve productivity and process flow. Emphasis is placed on real-world application through data-driven projects, process evaluation, and continuous improvement strategies.

COURSE OBJECTIVES

Upon completion of the course, students should be able to:

1. Apply foundational work measurement techniques.
2. Develop and interpret process charts and motion studies
3. Implement lean manufacturing principles such as value stream mapping, waste reduction, and continuous improvement (Kaizen) to optimize production systems.
4. Analyze work environments for ergonomic risks and apply human factors principles to improve safety, comfort, and efficiency in workstation design.
5. Integrate data from work measurement tools and digital technologies (e.g., wearable sensors, time-tracking software) to support evidence-based decision making.
6. Communicate technical findings and process improvement recommendations clearly through reports, visualizations, and presentations tailored to industry audiences.

INSTRUCTIONAL RESOURCES

1. Periodicals and books in libraries: information sheets: other video presentations and visual aids

TEACHING STRATEGIES/METHODS

To achieve the instructional objectives of the course, the instructor will employ lecture, discussion, demonstrations, laboratory projects and student oral/written responses. In addition the instructor will rely on the PSU online CANVAS system to help supplement classroom instruction, and the instructor **may** also employ some combination of other instructional methods including but not limited to:

- in-class activities and worksheets
- problem solving/creative thinking
- video presentations



- outside-class computer assignments
- cooperative learning methods
- individual project/reports/presentations
- out-of-class readings, assignments & responses
- online course supplementation
- class presentations

REQUIREMENTS FOR COURSE

Successful completion of all class activities, assignments, individual projects, & final exam/capstone project.

COMMUNICATION

If students have questions or concerns, they may meet with the instructor at the designated office times located above. They may also email or call the office number of the instructor. There is also an option of texting the instructor. Do not call the personal cell number of the instructor. The instructor will not return personal phone calls. The instructor will respond within 24 hours of receiving the message. If a message is sent on the weekend, there are no guarantee there will be a response within 24 hours. Do not wait until last minute for urgent concerns because it is not guaranteed the instructor will respond within time. The instructor will not run AI/Plagiarism checks for you. It is your responsibility to be aware of what you are writing/submitting. For messages sent beyond 4:59 pm on Friday's, it may take longer than 24 hours to respond.

EVALUATION/ASSESSMENT STRATEGIES

Each class activity will be assigned a specific number of points. The total points during the semester will determine the final course grade. **Missing or late assignments, quizzes and tests will receive "0" points.** No incomplete grades will be given in this course. The following scale will be used when assigning grades.

Grading Scale: 100% - 89.5% = A
 89.49% - 79.5% = B
 79.49% - 69.5% = C
 69.49% - 59.5% = D
 59.49% - 0% = F

EVALUATION/ASSESSMENT STRATEGIES CRITERIA

1. Assignments	15%
2. Quizzes... ..	10%
3. Capstone Project.....	30%
4. Case Studies.....	10%
5. Mid-Term Exam	15%
6. Final Exam	15%
7. Supplemental Assignments.....	5%

TOTAL = 100 %

Grading: It is at the discretion of the instructor to round up final grades. Several items will be considered such as attendance, assignments completed, academic issues, and opportunities taken.

Notes on Instructor Policies:

1. **Assignments:** It is expected that assignments will be submitted on or before the specified due date. Incompletes for the course will only be assigned under extreme circumstances. You will notice on the



schedule (most) due dates are on Fridays at 11:59 pm. However, you have until 11:59 pm on the Sunday after (two days after that Friday) to submit your assignment. This largely comes from feedback from students. They wanted due dates on Fridays but also appreciate a 'buffer' time period. If you do not submit your work by 11:59 pm on the respective Sunday, it is late. **Absolutely no class work will be accepted at a later time or date.** If you email the instructor your assignment, it will not be accepted. All work must be submitted in the respective Canvas submission box. If work is not submitted in the file type requested (e.g., .doc, .pdf, etc.) it is considered late and will not be graded.

2. ***Virtual Meetings:*** Each week, there will be a designated meeting time for the course. We will meet via Zoom, which the instructor will send the meeting link in Canvas. These are not mandatory, but will not be recorded. So, if you decide to not attend, you will miss whatever is discussed in these meetings. No new material will be presented during these meetings, but rather an opportunity to gain feedback about assignments or help with questions you may have. Meetings will take place starting at 5:00 pm CST and will last approximately one hour.
3. ***Extra Credit Assignments:*** There is limited extra credit or "make-up" work available in this course. It is recommended that students take advantage of these opportunities. Students will have the opportunity to earn two (2) extra credit points by visiting the writing center to help them with their assignments in class (up to 10 total points). In order to get the Extra Credit, students must have the Writing Center send the instructor an email confirmation of attendance with the course (TM 501) in the confirmation as well as what was worked on during the appointment.

Extra credit will not be applied until the end of the course. It will be applied to the Capstone Project.

4. ***Quizzes and Tests:*** Quizzes and Tests for this course are done entirely on Canvas. Just because these are completed online, does not give the student the right to blatantly cheat by looking answers up online. The instructor does allow the use of notes and the book on the test. Instructors can see when you switch to a different screen on a quiz or test on Canvas. It is recommended that if you want to use PowerPoints for the test or quiz, you should print these off. Therefore, if a student has logged attempts at switching screens during a quiz or test, this will result in an automatic **20%** deduction on the overall quiz or test grade. Quizzes and Tests are also timed in this course.
5. ***AI Usage:*** Artificial intelligence is an excellent resource to help garner ideas. However, it is considered cheating and plagiarism to use AI to write anything for you and turn it in as your own work. The instructor uses two different AI and plagiarism checkers in the course. If any assignment you turn in for a grade has a percentage of 30% or more showing plagiarized in either checker, the grade for the assignment will result in a zero. It will also be logged in the permanent file of the student and reported for academic dishonesty. In the past, students have used Grammarly to check for grammar usage, spelling, etc. It is not recommended to use this resource, as it will flag as AI usage. Utilizing the writing center on campus for help with anything related to your writing is recommended.

If work is found to be academically dishonest, all other work submitted by the student will be reassessed and re-graded accordingly.

6. ***Class Writing Policy:*** The PSU Writing Center is a service to all students enrolled in PSU courses. As you participate in the writing center, it is expected that you sign up for appointments many weeks prior to the due dates for assignments. **Your emergency is not the writing center's emergency** – therefore, do not wait until the day before or the week before your paper is due, and expect that you will be able to get an appointment with a writing center associate. Make all appointments well in advance of all due dates! You will also **not** use the excuse that you did not get an appointment in the writing center as an



excuse to turn in an assignment late – I do not accept late assignments! The writing center has notified me that if there has not been **SIGNIFICANT IMPROVEMENT, and/or major changes made on writing assignments after the initial visit, the student will not be able to use writing center services for the rest of the semester.** I will also expect to see changes and significant and/or major changes to the drafts when submitted for my review. All assignments **MUST** be the **BEST VERSION** of your writing! I will not review your paper if it is too difficult to read or understand because of grammatical or other errors. This is a graduate course, and I expect your work to be at a graduate level as a minimum expectation. All individual written assignments must be electronically submitted via Canvas as a Word.doc. Unless otherwise specified in the assignment requirements (as posted on Canvas), documents must be double-spaced and use Times New Roman, 12-point font. Use 1-inch margins. Do not right justify. Tab no more than one half inch for each new paragraph. Do not use a cover page and the name of the student will be listed on the first line. The second line will begin the assignment name. When submitting any response (be it an assignment, an essay, a homework answer, etc.) you must use complete sentences and proper spelling and grammar. Common errors include: misspellings, forgetting to capitalize the beginning of a sentence, forgetting to capitalize the letter “I” in reference to yourself, etc. You should always run a “spellcheck” and carefully review your response before submitting. You will lose 5-50% of the available points for writing errors.

7. For assistance with the basics of writing, please to go the PSU Writing Center. You can contact them at 620-235-4694 or schedule a visit at www.pittstate.mvwconline.com.

PSU Writing Center: 112 Axe Library

Email: writingcenter@pittstate.edu

Schedule an appointment: Monday – Thursday 9:00 a.m. – 6:00 p.m.

Walk-ins Welcome: Monday – Thursday 6:00 p.m. – 10:00 p.m.

University Policies: Relevant university policies will apply in this course. The Student Handbook provides information which will help you in your effort while at PSU. Items such as the drop/add policy, important dates, student services, campus organizations and many other topics can all be found at the following web site: <https://www.pittstate.edu/financial-aid/the-students-right-to-know.html> and <https://www.pittstate.edu/registrar/catalog/archive/2021-2022/student-rights-and-responsibilities.html>

Students with Special Needs: According to the Americans with Disabilities Act, it is the responsibility of each student with a disability to notify the University of his/her disability and to request accommodations. If any member of this class feels that he/she has a qualified disability and needs special accommodations, he/she should contact or visit the EO Office at 218 Russ Hall, or go to <https://www.pittstate.edu/office/center-for-student-accommodations/documentation-policy-and-guidelines-for-students.html> and fill out a **Request for Accommodation** form.

Additional Information:

- Announcements, reminders, notifications, and grades will be posted on CANVAS regularly.
- **Cheating and plagiarism will not be tolerated. Students are expected to complete assignments individually and responses should be “in your own words”. Students failing to follow the guidelines of academic conduct may receive an F for the course. This includes the use of AI.** Plagiarism is defined as using ideas or writings of another and claiming them as one’s own. Copying any material directly (be it the work of other students, professors, or colleagues) or copying information from print or electronic sources (including the internet) without explicitly acknowledging the true source of the material is plagiarism. Plagiarism also includes paraphrasing other individuals’ ideas or concepts without acknowledging their work, or contribution. To avoid charges of plagiarism, students should



follow the citation directions provided by the instructor and/or department in which the class is offered.

- For more information regarding Academic Integrity, please refer to <https://studentlife.pittstate.edu/code-of-student-rights-and-responsibilities.html#undefined30>
- Additional semester information about (including the following Academic Integrity Policy link above and the Weapons and Concealed Carry Policy link below), campus resources, expectations, notifications, severe weather, grades, semester important dates, the approved Dead Week Policy, etc. can be found at https://www.pittstate.edu/registrar/_files/documents/syllabus-supplement-fall-2020-updated-7-17-20.pdf

Weapons and Concealed Carry Policy:

Weapons Policy website <https://www.pittstate.edu/police/policies.html#undefined1> & Concealed Carry Weapons Policy https://www.pittstate.edu/police/_files/documents/Concealed-Carry-Weapons-Policy.pdf

The handgun must be in the person's custody & control at all times with safety mechanism engaged. Handguns must be carried securely in a suitable carrier (backpack, purse, handbag, or other personal carrier designed and intended for the carrying of an individual's personal items). The suitable carrier must at all times remain within the exclusive and uninterrupted control of the individual. This includes wearing the carrier with one or more straps consistent with the carriers design, carrying or holding the carrier, or setting the carrier next to or within the immediate reach of the individual.

Syllabus Supplement

The supplement is updated for each semester and the summer session and includes information for students about campus resources, notifications (including the required, aforementioned Academic Integrity Policy and the approved Dead Week Policy), expectations, grades, etc. Students can find more information on the syllabus supplement at the following link: [Microsoft Word - Syllabus Supplement Spring 2025](#)



TENTATIVE SCHEDULE ONLINE ASYNCHRONOUS

ONLINE ASYNCHRONOUS

WEEK	TOPIC(S) *These will be the topics covered over the course of the week	READINGS	DUE –DATES <i>Remember! Due dates are Friday by 11:59 pm, but submissions are accepted until the following Sunday by 11:59 pm. Beyond that, it is considered LATE.</i>
1	Intro to Work Measurement and Productivity	Article: The Basics of Work Measurement	Quiz 1 Syllabus Acknowledgement Introduction Post
2	Principles of Motion Economy	Article: Motion Study and Motion Economy	Quiz 2
3	Process Charting & Operation Analysis	Article: Process Charting Tools	Quiz 3 Process Charting Activity
4-5	- Time Study Basics - Conducting a Time Study	Article: Time Study Techniques	Quiz 4 Time Study & Efficiency Project Part I
6	Work Sampling Techniques	Article: Statistical Work Sampling	Quiz 5 Time Study & Efficiency Project Part II
7	Predetermined Time Systems	Article: Predetermined Time Standards	Quiz 6 Work Sampling Practice Problems
MIDTERM EXAM –One Attempt – Covers all topics from weeks 1-7 – Three Hour Time Limit			
8	Methods Engineering & Work Simplification	Article: Work Design	Quiz 7 Time Study & Efficiency Project Part III
9	Lean Manufacturing Principles and Waste Elimination	Article: Foundations of Lean	Quiz 8
10	Ergonomics and Human Factors in Work Design	Article: Ergonomics in the Work Environment	Quiz 9 Time Study & Efficiency Project Part IV
11	Line Balancing & Workstation Design	Article: Line Balancing Methods	Quiz 10 Time Study & Efficiency Project Part V
12	Continuous Improvement: Kaizen & Six Sigma	Article: Tools for Industry Improvement	LAST DAY FOR EXTRA CREDIT TO BE LOGGED Quiz 11
13	Technology in Work Measurement	Article: Digital Work Measurement	Quiz 12 Time Study & Efficiency Project Part VI
14	Final Exam Review		
FINAL EXAM – Comprehensive –One Attempt – Three Hour Time Limit			

