

**Thermal Physics Lab**  
CODE: PHYS 3705 (CRN: 23992)  
Semester 2026; 1/5– 4/26  
In person, 9-12, Thursdays , WBSH 1021

### Contact Information

**Professor:** M. Crescimanno

**Professional Qualifications:**

*Post Doctoral Position, MIT, Center for Theoretical Physics*

*Ph. D., Physics, U. of Ca., Berkeley*

*M.S., Physics, U. of Ca. , Berkeley*

*B. A., Physics, Princeton University (Summa Cum Laude)*

**Office:** WBSH 2015

**Phone:** 3309417109

**Email:** [mjcrecimanno@ysu.edu](mailto:mjcrecimanno@ysu.edu)

**Additional Contact Methods:** [dcphn@gmail.edu](mailto:dcphn@gmail.edu)

**Preferred Contact Method:** [email](#)

**Student Support Hours:** M: 3-4,, T 2-3, W 3-4, F 2-4

**Communication Expectations:** *English, minimal*

**How to refer to me:** usually called “Dr. C.”? He, Him?

### Catalog Description

*Experimental work designed to supplement PHYS 3705. Three hours per week.`*

### Course Readings

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

### Additional Course Materials

*Available online at the course website, <http://mjcrecimanno.people.ysu.edu/>*

### Course Learning Outcomes/Objectives

*This course is part of the technical writing requirement for the physics major/minor. Each report in this course will require draft writing and proof reading. Thus there will be considerable emphasis placed on the format of the lab report and the writeup. The report should follow, as closely as possible, the format of articles published in *The Physical review*. More on what that means later; templates for the format in TeX will be provided.*

### General Education, Program, or Degree Learning Outcomes/Objectives

N/A

### How to Succeed in This Course

## Technology

To successfully complete this course, you will need access to a computer with internet and Microsoft Office Suite ([available free](#)). Blackboard is free to use with your YSU login [here](#). Please let me know the first day of class if you do not have the appropriate access to technology and/or anticipate having trouble navigating Blackboard. We will work together to make sure technology is not a barrier to your success in this course.

Blackboard: Please be sure to login to Blackboard at least weekly during the duration of the course. Blackboard will be regularly used to share important course information.

## Understanding Early Alerts

In all your classes, your professors may create a “flag” related to your performance in a class. Professors may indicate that you are having difficulty understanding course material, not attending class, missing assignments, etc. These alerts do NOT stay on a permanent record, and they are NOT used in any way as a penalty against you. The alerts are used to help you find a solution that is realistic and helps you succeed.

## How to Get Help

YSU is committed to your success. As a student you have access to several resources that may be instrumental in helping you succeed in this course and others. Please do not hesitate to utilize any of these [free support services](#) to support your academic success, physical and mental health, registration, billing, and financial aid, assistance for student parents—all to help you navigate your time as a YSU student.

[Click here for YSU Student Support Resources](#)

## Attendance Expectations

Class attendance adheres to the [YSU Class Attendance Policy](#) and the [Religious Accommodations of Students Policy](#). Additional, course-specific attendance procedures may also be listed in this section.

*Attendance will be recorded for each of the laboratory groups and sections. All students in each group must be present in the laboratory during the entire laboratory and take part otherwise the lab cannot be done.*

## Late Work Submission Policy

Late work submission adheres to the [YSU Class Attendance Policy](#) and the [Religious Accommodations of Students Policy](#). Additional, course-specific late work submission procedures may also be listed in this section.

## Additional Course Expectations

A positive learning environment involves commitment of both instructor and students in a course. [Reciprocal Responsibilities for Undergraduate Students and Instructors](#) was developed jointly with the Student Government Association and YSU Academic Senate to outline mutual responsibilities in the classroom, and our class will follow these guidelines.

Each week you and your buddy do a lab together (except your 'bye' week). Buddies shift each week. See the posted schedule.

Each person has to be the "lead" on two experiments in each 7 week session, so that is you are lead on only 4 serious writeups all semester.

If your lab buddy is the lead that week then you are "support" and expected to contribute to the report.

The weeks you are not lead you may have to submit a panel for the labgroup poster the following week. The panel shall have five components. A title, author block, a purpose/description block, a picture+diagram of the apparatus, the data as a graph or two and a brief description of the result/conclusion. At the end of 7 weeks the whole class will vote on which panel submissions go into the final poster, and those authors will get extra points for that poster panel submission.

Before the lab after one in which you were a lead YOU MUST HAND THAT DRAFT (on paper) INTO THE INSTRUCTOR TO PROCEED WITH THAT WEEKS EXPERIMENT, NO EXCEPTIONS. IF YOU COME EMPTY HANDED YOU WILL NOT BE ABLE TO COMPLETE THE LAB THAT WEEK. Before the lab after the one in which you were a poster panel submitter YOU MUST HAND THAT PANEL (electronically, .pptx format only) INTO THE INSTRUCTOR TO PROCEED WITH THAT WEEKS EXPERIMENT, NO EXCEPTIONS. IF YOU COME EMPTY HANDED YOU WILL NOT BE ABLE TO COMPLETE THE LAB THAT WEEK.

To repeat, if "lead" the previous week, you will this week hand the draft ON PAPER. Not electronic. That draft is worth up to 70 percent of the final paper grade. The instructor will make corrections/suggestions for improvement and award up to 30\% more for the corrections handed (and 30\% on the rest of the paper) by the end of the seven week sequence. Every effort will be made to get the written draft comments back to you in a timely fashion so that you might even be able to correct it in the same week.

The draft grade will comprise completeness, physical review format, description of how the error analysis is going to be computed and the legibility of the graphs/data tables (See rubric online).

The final draft grade will be on completeness, format, how completely corrections from draft that are addressed in the final copy, the cogency of the analysis, the rigor and application of the error analysis to the conclusions of the lab. You must turn in the graded/marked rough draft with the final draft, stapled together.

You can miss up to one lab in each 7-week session, more than that and you WILL HAVE TO TAKE THE ENTIRE CLASS AGAIN. You will still have to hand in 4 written labs and two poster panels over the course of the entire semester to pass.

Suppose you are there but your partner flaked. You hand in your panel or report (or not if it was a 'bye' week previously OR just nothing due) and proceed without them that week with the help of friends and the instructor. If it was your partner's turn to turn in a report as lead, then anyways, you go on.

## Artificial Intelligence Policy Statement

**There are three policy statements listed below, you should select and edit the one that best fits your preferences.** Instructors are encouraged to think how their policy statement aligns with the Senate-endorsed YSU AI Principles Statement, available [here](#). You may modify the AI Policy Statement to your satisfaction.

*For this class we are implementing Option 3, prohibiting the use of LLM-based online tools for all class exercises including quizzes, exams, in class work and online homework. Any use of AI tools for work in this class may be considered a violation of the YSU Code of Conduct.*

### Option 1: AI Use is Freely Permitted

Students are allowed to use generative artificial intelligence such as ChatGPT for all activities and assignments related to this course; citation rules for the course's discipline should be followed.

### Option 2: Some AI Use Allowed: Acceptable and Unacceptable Uses of AI

*[Adjust this statement to reflect your particular parameters of acceptable use. The following is an example.]*

The responsible use of generative artificial intelligence is permitted in this course, within the parameters established in the *YSU Student Code of Conduct*. You are expected to complete each assignment without substantive assistance from others (subject to faculty discretion), including automated tools. You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content). Your use of AI tools must be properly cited. For example, *[Insert citation style for your discipline. See [these resources](#) for common citation formats]*. Any use of generative AI tools without attribution may be considered a violation of the *YSU Code of Conduct*. When in doubt about permitted usage, please ask for clarification.

The use of generative AI tools such as ChatGPT is permitted in this course for the following activities (see a full idea list here):

- Brainstorming and refining your ideas;
- Fine tuning your research questions;
- Finding information on your topic;
- Clarify unclear course concepts;

- Drafting an outline to organize your thoughts; and
- Checking grammar and style.

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose discussion board prompts assigned to you or content that you put into an online chat.
- Completing group work that your group has assigned to you, unless it is mutually agreed upon that you may utilize the tool.
- Writing a draft of a writing assignment.
- Writing entire sentences, paragraphs or papers to complete class assignments.

### Option 3: AI Use Prohibited

Students are not allowed to use generative artificial intelligence such as ChatGPT on assignments in this course. Each student is expected to complete each assignment without substantive assistance from others, including automated tools. Any use of AI tools for work in this class may be considered a violation of the *YSU Code of Conduct*.

### Assignments/Assessments

See “Additional Course Expectations” above. We will complete 12 labs in Thermal Physics over the course of the semester, 7 running concurrently each semester half. See the website/schedule for the list of this year's labs.

### Grading and Grading Scale

YSU courses follow the [YSU Grading System](#). The course may have additional, course-specific grading policies.

Your grade will consist of your lab report grade average and your poster panel contributions. Your lab report average grade will count for %80 percent of your grade. The poster panel contributions will count for %20.

The resulting grading scale will be

85+ A  
75-85 B  
60-75 C  
50-60 D  
50- F

### University Policies

[University policies](#) can be found online and provide you guidance on your rights as a student in this course. The links below take you directly to a specific policy. Should you have any questions about a policy, please do not hesitate to contact me using the information at the top of the syllabus.

- [Academic Grievances and Complaints](#)
- [Academic Integrity/Honesty](#)

- [Class Attendance Policy](#)
- [Community Engaged Course Statement](#) (placeholder link until posted on the Syllabus site)
- [Honors Contracts](#)
- [Incomplete Grade Policy](#)
- [Religious Accommodation of Students](#)
- [Statement of Non-Discrimination from the University](#)
- [Student Accessibility](#)

*Additional, course-specific university policies may be added here.*

### Tentative Course Schedule (Subject to Change)

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.

Date	Proposed Topic	Class Readings	Assignments/Tasks Due
<i>Fill in your course dates; check the <a href="#">semester calendar</a></i>	<i>Write in proposed topics to be covered in your course with the corresponding date. Consider indicating which course learning outcome aligns with the given topic.</i>	<i>Include readings and other preparation assignments.</i>	<i>Let students know what is due on this date.</i>