

Course Number: 176

Astronomy Laboratory

Room: 405 Yates Hall

Instructor: Kyla ScarboroughLab Section: 176-

Lab TA: _____

Course Time: 2:00-3:50Course Days: M-THe-mail: kscarborough@pittstate.edu or

Office Hours: Below Phone: 235-4292 Office: 304 Yates Hall

k.scarborough@gmail.com**No Canvas messaging.**

PURPOSE OF THE COURSE: This on campus face-to-face course counts toward the requirements in General Education for your degree program. General Education is an important part of your educational program at Pittsburg State University and has been designed to implement the following philosophy: Philosophy of General Education: General education is the study of humans in their global setting. The general education curriculum, therefore, acts as the heart of a university education by developing the capacities that typify the educated person and providing a basis for life-long learning and intellectual, ethical, and aesthetic fulfillment. General education examines the world around us and fosters an understanding of our interactions with the world and our place in the universe. General education celebrates the creative capacities of humankind and helps to preserve and transmit to future generations the values, knowledge, wisdom, and sense of history that are our common heritage.

This course will help you accomplish several of the Goals and Objectives of General Education including the development of your ability to use the tools of mathematics to communicate and to formulate and solve problems and the development of your critical thinking skills.

COURSE OBJECTIVES: The laboratory experiments that you will perform are intended to reinforce material from the lecture and to help develop an understanding of the tools and methods of astronomers and scientists in general. This laboratory is designed to expose students to laboratory equipment; to develop laboratory skills such as **careful data collecting, graphing, and appropriate analyzing of experimental results**; to reinforce astronomy concepts developed in the lecture; and to expose students to Earth and space science. You should attain some degree of mastery in using the scientific method, **graphing data, using math as a tool, unit conversions, and problem solving**. You should also successfully analyze collected data (including appropriate treatment of errors and uncertainties) and generate and communicate conclusions based on the data.

You will need to bring a **pencil (not pen)**, paper, and a **calculator with trig functions that can express results in scientific notation (not a cell phone or i-pad calculator) to each lab session**. You will also need a notebook or folder in which to keep your graded worksheets. **Graded lab worksheets may be used on the final examination. *Cell phone text messaging and Internet usage are not allowed during lab.***

EVALUATION: YOUR GRADE IN THIS CLASS IS DETERMINED BY THE TOTAL NUMBER OF POINTS THAT YOU HAVE.

1. *Attendance & Participation	12 @ 7.5 points per lab	.	.	90 points
2. Lab Worksheets	12 @ 7.5 points each	.	.	90 points
3. 1 Lab Final	1 @ 20 points	.	.	20 points
	Total Points	.	.	200 points

***You will not be awarded the full amount of attendance points if you do not fully-participate, calculate your own numerical solutions, and follow directions in lab. Points will also be deducted if you text or otherwise use your phone during lab, if you arrive to lab late, leave the lab early, leave lab before your partner, or do not have a calculator with you when you arrive. No loaning of calculators is allowed.**

No calculator = -2

Loaning a calculator = -2

Not following directions = -2 each time

5-10 minutes late = -1 More than 10 min late = from -2 to -7

Leaving before partners are finished = -2

Leaving before finished = from -2 to -7

Texting during class = -2 each time

Using Internet during class = -4

Not using pencil = -2

Not doing own math = -5

GRADING SCALE

180-200 POINTS	A
160-179 POINTS	B
140-159 POINTS	C
120-139 POINTS	D
Below 120 POINTS	F

ATTENDANCE: Your attendance is required for each lab as is your participation. Lab worksheets will not be graded for labs that you do not attend. Missed labs may not be made up.

You will never be awarded attendance points for a lab that you do not attend.

VII. TENTATIVE SCHEDULE

<u>M</u>	<u>Tu</u>	<u>W</u>	<u>Th</u>	
8/27	8/28	8/29	8/30	Lab 1: Introduction, Planet X, Star Map
No lab Monday, September 3rd, Labor Day				
9/10	9/4	9/5	9/6	Lab 2: Changing Latitude, Daily & Annual Motion
9/17	9/11	9/12	9/13	Lab 3: Seasons & Length of the Day
9/24	9/18	9/19	9/20	Lab 4: Extra-solar Planets & Fermi Paradox *(Bring notebook paper)*
10/1	9/25	9/26	9/27	Lab 5: Plate Tectonics
*10-10	10/2	10/3	10/4	Lab 6: Radioactivity

No labs October 9-11 due to Fall Break.

10/15	10/16	10/17	10/18	Lab 7: Mercury Rotation
10/22	10/23	10/24	10/25	Lab 8: Jupiter’s Moons & the Speed of Light
10/29	10/30	10/31	11/1	Lab 9: Atmospheres 2 of 3 *(Bring notebook paper)*
11/5	11/6	11/7	11/8	Lab 10: Flow of Energy & Emission Spectra
11/12	11/13	11/14	11/15	Lab 11: Sunspots

No labs November 19-22, Thanksgiving week.

11/26	11/27	11/27	11/29	Lab 12: Hubble’s Law
12/3	12/4	12/5	12/6	LAB FINAL, DURING DEAD WEEK.

THERE IS NO LAB ACTIVITY DURING FINALS’ WEEK—LAB IS OVER.

Tentative Office Schedule~Kyla Scarborough Fall 2018

	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:50	Lunch	Lunch	Lunch	Lunch	Lunch
10:00-10:50	Physical Science	Astro Lab Set-up	Physical Science	Office Hours	Physical Science
11:00-11:50	Office Hours	Office Hours	Office Hours	Office Hours	Office Hours
12:00-12:50	Astro Lab Set-up	PS Lab		PS Lab	Faculty Meeting
1:00-1:50	Descriptive Astronomy	PS Lab	Descriptive Astronomy	PS Lab	Descriptive Astronomy
2:00-2:50	Astro. Lab	Astro. Lab	Astro. Lab	Astro. Lab	PS Lab Set-up
3:00-3:50	Astro. Lab	Astro. Lab	Astro. Lab	Astro. Lab	PS Lab Set-up

Goals of General Education

The overall purpose of the General Education program is to provide an environment in which students can acquire the basic knowledge and skills common to educated people in our global society. To do this, the program provides instruction in certain basic disciplines ranging from the arts to science and technology. But it does more. It stimulates critical thinking and encourages decision-making free from prejudice or insularity. It develops the ability to communicate effectively via a variety of means. The program promotes ethical and aesthetic growth. It cultivates an appreciation of different cultures and the rights of others. In short, the foundation provided by General Education helps Pittsburg State University graduates lead satisfying lives and function responsibly in a complex and ever-changing world. And above all, the program provides a basis for future growth.

Goals of General Education for this Course are below.

Goal #1: Students should be able to communicate effectively.

OBJECTIVES:

Demonstrate the ability to formulate and solve problems using the tools of mathematics.

Goal #2: Students should be able to think critically.

OBJECTIVES:

Demonstrate the ability to distinguish between relevant and irrelevant information in problem solving.

Articulate a problem and develop a logical and reasonable response to it using appropriate sources.

Apply generalizations, principles, theories, or rules to the real world.

Demonstrate the ability to analyze and synthesize information.

Goal #3: Students should be able to function responsibly in the world in which they live.

OBJECTIVES:

Part I: Sciences

Demonstrate an understanding of the basic principles, facts, and theories of the biological and physical sciences.
Demonstrate an understanding of the basic methods of inquiry, analysis and description in the biological and physical sciences.
Demonstrate an understanding of how the natural sciences contribute to the general welfare of civilization.

Part II: Social Studies

Evaluate the impact of scientific, technological, economic, and intellectual change on social and political institutions.

Pittsburg State University Syllabus Supplement – Fall 2018

IMPORTANT DATES

8/20.....Classes begin
8/27..... Tuition due
8/27.....Last day for full tuition refund
8/27..... Last day to add classes w/o permission of instructor
9/3.....Labor Day Holiday
9/4..... Final day to drop w/o transcript notation
9/26.....Last day for half refund
10/11-10/12.....Fall Break
10/15..... Mid-term D and F grades available after 5:00 pm
11/5..... Final day to drop a course unless withdrawing from all classes
11/21..... Thanksgiving Holiday begins
11/29.....Last day to withdraw from all classes
12/10.....Finals week through 12/14
12/14.....Deadline to remove/extend IN grades for 2018 SP and SU semester
12/17..... Grades due from faculty

DROPPING A COURSE OR WITHDRAWING FOR THE SEMESTER

Beginning the 12th week through the 16th week of full-term courses, individual courses cannot be dropped.

A student who does not officially withdraw from a course or from the university will be assigned an "F" grade in the course or courses concerned. These "F" grades will be included in the computation of the GPA.

The dates for dropping courses that run fewer than sixteen weeks are proportionate to the length of the course (e.g. the last day to drop an eight week course would be the end of the sixth week). Consult your instructor or the Registrar's Office for questions about a specific course. For students who wish to withdraw from all classes after the 12th week of the term, the instructor must assign a grade of W or F.

To drop a course after the 5th day of class or for clarification on drop/add policies, contact the Registrar's Office, 103 Russ Hall, 620-235-4200 or registrar@pittstate.edu

IMPORTANT INFORMATION FOR STUDENTS RECEIVING FINANCIAL ASSISTANCE

Student aid is available each semester for students who qualify. Please contact the Office of Student Financial Assistance for any questions at 620-235-4240 or by email at finaid@pittstate.edu.

The Office of Student Financial Assistance is required to recalculate financial aid eligibility for students who withdraw, stop attending or are dismissed prior to completing 60 percent of a semester. This calculation applies to students receiving the following Title IV funds including: Federal Pell Grant Federal Parent PLUS Loan

Federal Direct Loan Federal TEACH Grant for education majors

Federal financial aid is returned to the federal government based on the percent of unearned aid disbursed toward institutional charges for tuition, fees, and on-campus room and board. Students may be required to repay a portion of the aid funds received.

When aid is returned, the student may owe a balance to the University and/or Department of Education Title IV Programs. Please contact Student Financial Aid if you are considering dropping hours during the semester, to see how you will be affected.

IMPORTANT INFORMATION FOR INTERNATIONAL STUDENTS

International students studying on F or J visas must be in proper immigration status and are required to always be in full time enrollment (minimum 12 hours undergraduate or 9 hours graduate). For additional information <https://www.pittstate.edu/international/immigration.html>

CLASS ATTENDANCE POLICY

Students at Pittsburg State University are expected to attend class regularly and participate fully in class activities. It is the responsibility of the course instructor to set the attendance policy for his or her courses and communicate that policy to students in the course syllabus. The syllabus should address whether and how attendance affects the course grade, the issue of excused absences, and whether students will be dropped for nonattendance or excessive absence.

Students who have not attended or who have been excessively absent from a class may be dropped from the course by the instructor. In such instances, this policy must be clearly stated in the syllabus and uniformly enforced. Students may be dropped at anytime in the semester based on

course policy. Instructor drops after the beginning of the 12th week of a full semester class will result in a grade of "F" for the course.

Regardless of the faculty prerogative to drop a student for nonattendance or excessive absence, the ultimate responsibility for monitoring and maintaining up-to-date course enrollment rests with the student.

SEVERE WEATHER INFORMATION

If forecasts or weather conditions suggest that travel in the area could become hazardous a policy is in place to determine if classes or other University activities will be cancelled. This policy and notification process can be found at <https://www.pittstate.edu/police/safety.html#undefined5>. Notification methods typically include the PSU website, local news media, and text messaging for those who subscribe to this service.

ACADEMIC INTEGRITY POLICY

Academic dishonesty by a student is defined as unethical activity associated with course work or grades.

It includes, but is not limited to:

- Giving or receiving unauthorized aid on examinations.
- Giving or receiving unauthorized aid in the preparation of notebooks, themes, reports, papers or any other assignments.
- Submitting the same work for more than one course without the instructor's permission, and,
- Plagiarism. 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.

The above guidelines do not preclude group study for exams, sharing of sources for research projects, or students discussing their ideas with other members of the class unless explicitly prohibited by the instructor.

Since the violation of academic honesty strikes at the heart of the education process, it is subject to the severest sanctions, up to and including receiving an "F" or "XF" (an "XF" indicates that "F" was the result of academic dishonesty) for the entire class and dismissal from the university. For a full copy of this policy see:

http://catalog.pittstate.edu/contentm/blueprints/blueprint_display.php?bp_listing_id=162&blueprint_id=124&sid=1&menu_id=7980

MID-TERM GRADES

After the eighth week of the fall and spring semester, mid-semester "D" and "F" grades submitted by faculty are reported by the Office of the Registrar to the dean of the college in which you are majoring. All "D" and "F" grades submitted by faculty will be reported by the Registrar to you and your academic advisor through the on-line student information system (GUS). No mid-semester report of "D" and "F" grades are distributed for the summer session.

INCOMPLETE GRADES

Incomplete grade may be assigned in rare instances when a student is unable to complete a course due to circumstances beyond his/her control. You must have completed a majority of the coursework to be eligible for this consideration. Unless granted an extension by the instructor, students have only one semester to complete the work.

If you feel like you qualify for an Incomplete grade, you should visit with your instructor and not assume an IN grade will be assigned automatically.

CREDIT FOR PRIOR LEARNING

Pittsburg State University accepts credit for AP, CLEP and IB exams. Learn more at <https://www.pittstate.edu/registrar/credit-for-prior-learning.html> Additional information may also be found in the catalog under Academic Regulations.

FINAL GRADE REPORTS

Final grades are reported to the Registrar's Office at the conclusion of the course. You may access your grades in GUS immediately upon grade posting.

GRADE APPEALS

Final course grades are to be awarded upon criteria communicated to the student at the beginning of the semester. Additional work after a final grade was submitted cannot be used to change the grade. If you believe that an error has been made in the assignment or recording of a final grade, you should first confer with the instructor. If such a conference does not resolve the problem, a grade appeal form must be submitted to the head of the academic department that

offers the course in question. This appeal form must be submitted no later than six weeks after the beginning of the fall or spring semester immediately following the semester in which the grade being appealed was received.

The appeal form is available online on the Registrar's Office and Graduate School's webpage under forms.

DEAD WEEK POLICY

No tests or major assignments will be presented during the week prior to final examination week, unless identified in the course syllabus presented at the start of the semester.

FINAL EXAM SCHEDULE

Final examinations will be given according to the schedule of examinations available at <https://registrar.pittstate.edu/final-exam-schedule.html>

FINAL EXAM OVERLOAD POLICY

If you have three or more final exams officially scheduled for a single day you are entitled to arrange with the faculty member instructing the highest numbered course (the 3 digit number following the department code) a different day for the exam. If two courses have the same number, the course with the lower enrollment would be rescheduled.

Students requesting accommodation should submit their request on the form found at <https://registrar.pittstate.edu/forms.html> along with a copy of their class schedule, at least two weeks prior to the beginning of final exam week. The faculty member has until the Monday of pre-finals week to arrange a mutually convenient time for administration of the final exam. If the matter cannot be resolved between student and faculty member, you may take the request to the Office of the Provost, 220 Russ Hall, no later than the Wednesday of dead week.

WEAPONS and CONCEALED CARRY POLICY

Weapons Policy website

<https://www.pittstate.edu/police/policies.html#undefined1> and Concealed Carry Weapons Policy

<https://www.pittstate.edu/police/policies.html#undefined2>

The handgun must be in the person's custody and 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.

UNIVERSITY SPONSORED STUDENT ACTIVITY POLICY

For the University Sponsored Student Activity Policy see https://www.pittstate.edu/faculty-staff/_files/documents/faculty-senate/documents/university-sponsored-activity-policy.pdf

Contact: SGA Academic Affairs Director, Room 111 Overman Student Center, Telephone: 620.235.4810 E-mail sga_aa@pittstate.edu

WHERE TO GO FOR ASSISTANCE

Pittsburg State administration, faculty, and staff are here to assist you in your academic success. If you have questions or concerns that affect your academic success, it is important that we hear from you.

Your Instructor

Faculty members usually include their office hours and contact information in the class syllabus. If not, set a time to meet with your instructor by speaking with him/her prior to or immediately following your class session or check with the departmental office for instructor availability.

Writing Assistance

The Writing Center offers free writing consultations for students at any stage of the writing process for any writing project. Writing Center consultants are experienced writers who are committed to helping you achieve your writing goals.

Dr. Jessica Jorgenson Borchert, Director and Dr. Janet Zepernick, Assistant Director, Writing Center Telephone: 620-235-4694

http://www.pittstate.edu/office/writing_center/

Library

Library Services, whether in the Leonard H. Axe Library or the Kansas Technology Center Library, is committed to providing innovative and learner-centered environments that will help students be successful, support the research and information needs of our campus and community library users, and enhance the University experience. Library Services offers one-on-one research assistance, print collections, online reference services, remote access to our databases, e-books and e-journals, digital archives, research guides, scanning, printing, a computer lab, and instruction programs to support the curriculum. Axe Library is also home to the Student Success Center, the Writing Center, Honors College, the Women's and Gender Resource Center, and food and beverage services. More information is available at our website: <https://axe.pittstate.edu/index.html> or call 620-235-4879 or 620-235-4880.

Student Success Programs

Support is available to all students in Student Success Programs. Academic Success Workshops are provided throughout the semester to allow student

to enhance their academic skills. Topics include note-taking strategies, test preparation, time management, among many other options. Tutoring for select general education courses is available. One-on-one academic success coaching can be scheduled to develop study plans and learn new strategies. Student-led study group support is also available when requested.

Heather Eckstein

Student Success Programs, 113 Axe

Telephone: 620-235-6578 Email: heckstein@pittstate.edu

<http://www.pittstate.edu/office/student-success-programs/>

Ashley Wadell

Student Success Programs, 113 Axe

Telephone: 620-235-4951 Email: awadell@pittstate.edu

<http://www.pittstate.edu/office/student-success-programs/>

Tutoring

Tutoring programs related to general education classes are available. Whether you are studying for a test, writing a paper or preparing a presentation, tutors can help you sharpen your skills and increase your knowledge. If you are struggling with a class, then a tutor can help you get back on track. Use tutoring to get better grades!

<https://www.pittstate.edu/office/student-success-programs/tutoring.html>

Computer/Technology Assistance

Gorilla Geeks Help Desk is responsible for assisting students with various technology needs. Services available include help with GUS and GUS Passwords, PSU email, assistance with campus system problems and support of the campus wireless network.

In addition, we help with technology needs that are essential for academic success. Services include assistance with educational software packages used on campus including Microsoft OS, Office applications, basic Canvas support and other campus applications; help with computer hardware or software problems; wireless connectivity; and configuring new computers.

Gorilla Geeks Help Desk

Telephone: 620-235-4600 E-mail: Geeks@pittstate.edu

<https://www.pittstate.edu/it/index.html>

Services for Students with Learning and Physical Disabilities

Coordinator, Center for Student Accommodations 213 Russ Hall, Telephone:

620-235-6584 <https://www.pittstate.edu/office/center-for-student-accommodations/index.html>

Student Health Center

Telephone: 620-235-4452

<https://pittstate.edu/office/health-services/index.html>

University Counseling Services

Telephone: 620-235-4452

<https://www.pittstate.edu/office/university-counseling/index.html>

Career Services

Telephone: 620-235-4140 Email: car@pittstate.edu

<https://careers.pittstate.edu/>

Financial Assistance:

- Need some help with how to make the payments? See Student Financial Assistance. <https://www.pittstate.edu/financial-aid/index.html>
- Don't forget to check with us before you make changes to your schedule to avoid future semester ineligibility.

Student Financial Assistance at finaid@pittstate.edu or 620-235-4240.

Sexual Assault and Relationship Violence Pittsburg State University prohibits all forms of sexual misconduct and relationship violence to include rape, acquaintance rape, domestic violence, dating violence, sexual assault and stalking.

Reporting Incidents of Sexual Misconduct or Relationship Violence:

<https://studentlife.pittstate.edu/get-help/sexual-misconduct.html#undefined2>

Resources for Victims of Sexual Misconduct or Relationship Violence:

<https://studentlife.pittstate.edu/get-help/sexual-misconduct.html#undefined3>

Title IX <https://www.pittstate.edu/office/institutional-equity/title-ix.html>

Notice of Nondiscrimination Pittsburg State University prohibits discrimination on the basis of race, color, religion, sex, national origin, sexual orientation, age, marital status, ancestry, genetic information, or disabilities. The following person has been designated to address inquiries regarding the nondiscrimination policies: Director of Institutional Equity/Title IX Coordinator, 218 Russ Hall, 1701 S. Broadway, Pittsburg, KS 66762-7528, 620-235-4189, equity@pittstate.edu.

