

Abilene Approval Chart for Curriculum Changes

A = Approve I = Information Item R = Respond In Writing

Course Number: PHYS 115 **or Degree Plan(s):**

	Campus-Level Academic Review ¹						
	Change to a Course Include signatures from all chairs/program directors for cross-listed courses. ¹						
1.	Title (description unchanged)	A	A	A	I	I	I
2.	Description (not affecting content)	A	A	A	I	I	I
3.	Course term(s)	A	I	A	I	I	I
4.	Content (change of course outcomes)	A	A	A	I	I	A
5.	Number of credit hours	A	A	A	A	A	A
6.	Course number within the hundred	A	A	I	I	I	I
7.	Course number beyond the hundred	A	A	A	A	A	A
8.	Prerequisites	A	A	A	I	I	I
9.	Course restriction (e.g., majors only, junior standing)	A	A	A	A	A	A
10.	Level change (U to G or G to U)	A	A	A	A	A	A
11.	Cross list course	A	A	A	A	A	A
12.	Department of record	A	A	A	A	A	A
13.	Open or close a course	A	A	A	A	A	A
	Change to a Degree Plan						
14.	Educational Program — Revise	A	A	A	A	A	A
15.	Educational Program — Adopt/revise admission requirements	A	A	A	A	A	A
16.	GPA — Revise program-required GPA	A	A	A	A	A	A
17.	Minor — Revise	A	A	A	A	A	A

	Full Review								
	Change to Catalog Information (for Campus)								
18.	General requirements for Bachelor’s and Associate Degrees	-	-	-	-	A	A	A	A
19.	Policies governing academic probation and suspension	-	-	-	-	A	A	A	A
20.	Requirements for graduating with honors	-	-	-	-	A	A	A	A
	Change to a Degree Plan								
21.	Educational Program — Add or Discontinue ²³	A	A	A	A	A	A	A	A
22.	Educational Program — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A
23.	Minor — Add or Discontinue	A	A	A	A	A	A	-	A
24.	Minor — Discontinue (Provost-proposed)	R	-	R	A	A	A	-	A
25.	Degree — Add or Discontinue	A	A	A	A	A	A	A	A
26.	Degree — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A

	Change to General Education Requirements for Undergraduates (System)	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
27.	Change course outcomes of an included course	A	A	A	A	A	A	–	A	I
28.	Add or drop a required course from the General Education Requirements	A	–	A	–	A	A	A	A	I
29.	Add or drop a course from a menu within the General Education Requirements	A	–	A	–	A	A	–	A	I
30.	Comprehensive revision of General Education Requirements	–	–	–	–	A	A	A	A	I

Notes

² Any change to a cross-listed course requires the signature of both department chairs or program directors overseeing the course to ensure that the courses stay in sync. This includes courses taught at other campuses (e.g. BIBL 101 and BIBO 101).

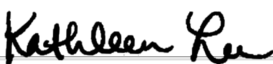
³ For undergraduate majors, a minimum of 30 hours is required. These programs must have a minimum of 6 elective hours, unless the requirements of external accrediting bodies make it impossible. Master's programs must include a minimum of 30 hours, and doctoral programs must include a minimum of 30 hours beyond the master's.

⁴ When a department/school or dean proposes closing a program, approval routing follows the typical process beginning with the department/school. An administrative proposal by the provost or senior vice president for academic affairs would follow the "provost-proposed" routing on the chart.

Department/School(s)

	03/26/26
Chair Signature	Date
Chair/Program Director Signature	Date

College Academic Council(s)

	04/16/2026
Chair Signature	Date
Chair Signature	Date

Dean(s)

	4/16/2026
Signature	Date
Signature	Date

Teacher Education Council

Signature	Date
-----------	------

**Campus Academic Council:
Abilene Undergraduate or Abilene Graduate**

Signature	Date
-----------	------

Provost

Signature	Date
-----------	------

University General Education Council

Signature	Date
-----------	------

University Faculty

Abilene Faculty Senate Chair signature	Date
--	------

Dallas Faculty Council Chair signature	Date
--	------

Senior Vice President for Academic Affairs

Signature	Date
-----------	------

President

Signature	Date
-----------	------

Abilene New Course Application

You may delete the preceding instructional pages before submitting application.

Course ID (<i>Subject Code and Number</i>)	PHYS 115
--	----------

1. Systems and Catalog Information Complete each item.

A	Course Developer	Larry Isenhower, Michael Daugherty
B	Course Instructor	Michael Daugherty
C	Course Title	Introduction to Physics
D	Course Abbreviation for Banner if title is more than 30 characters	-
E	College	OSE - Onstead Science and Engineering
F	Department or School	PHYS - Physics
G	Number of Credit Hours	2
G1	Number of Lecture Contact Hours	1
G2	Number of Lab Contact Hours	2
H	Is the course for a fixed or variable number of credit hours?	Fixed If variable, explain rationale:
I	Is the course repeatable for additional credit?	No
J	Maximum total number of credit hours a student can earn for this course	2
K	Course Schedule Type	Lecture/Lab (LLB) See Schedule Type definitions in the Reference section.
L	Number of Faculty Workload Hours	3
M	Grading Mode	Standard
N	Maximum Enrollment	25

O	Catalog Description (50 words or less)	An introduction to the career fields of physics. Topics include sub disciplines within physics, tools and methods used in these disciplines, and the processes of modeling and problem solving. Computational analytical and experimental design tools will also be introduced. Prerequisite: MATH 124 or simultaneous enrollment. Corequisite: PHYS 116.
P	List any prerequisites (course/s, test scores, class standing, major, etc.)	MATH 124 or simultaneous enrollment in MATH 124
Q	List any corequisites (these <i>must</i> be taken at the same time; note that a single requirement cannot be both a prerequisite <i>and</i> a corequisite)	PHYS 116
R	If the course is cross-listed, specify the subject code and course number of the other course	
S	Does this course require any additional student course fees?	No If yes, attach a completed course fee form .
T1	Will the course be offered in fall terms?	Yes
T2	Will the course be offered in spring terms?	No
T3	Will the course be offered in summer terms?	No
U	First semester this course will be offered under new Course ID. <i>May not be earlier than the coming fall semester.</i>	Fall 2026
V	Is this course required for a program(s)?	Yes If yes, submit a separate completed curriculum proposal to change the program(s).

W	Should the addition of this course be retroactively applied to the degree plan it supports? <i>This is rare, and rationale should explain compelling extenuating circumstances.</i>	No If yes, provide rationale:
X	Has this course been offered as a Special Topics course? <i>New courses are not required to be taught as Special Topics courses prior to approval.</i>	No, but this course has been co-taught together with engineering faculty as ENGR 115 for several years, but that will not continue as the departments separate this year.
Y	List any courses in which the content overlaps the proposed course. (Course ID and Name). <i>Attach a statement from the instructor/dept chair of the existing course justifying the new offering.</i>	

2. Curriculum

- A. Explain any effects of this course on any degree plans. If the addition of the course alters program requirements, submit a separate [Approval Chart for Curriculum Change](#) to update the program.

This course will replace ENGR 115 in all PHYS tracks and in the PHMT and PHCS teaching tracks.

- B. Justify the addition of this course to the current curriculum, explaining the gap it meets.

With the upcoming split in the ENGR and PHYS department we need to have this course for our incoming physics majors as the physics content is being removed from the ENGR 115 course to better support their majors. This introductory content is still important and the new separate format will allow us to better tailor the content to physics majors.

3. Course Design

- A. Audience and Course Goal

1. Describe the intended audience, including prerequisite skills.

This course is intended for first semester physics majors who are able to start at MATH 124 or higher.

2. State the overarching course goal(s) in performance terms.

Students will learn about the careers available to physics majors and how to obtain them.

Students will be introduced to problem solving, mathematical, computational, and experimental design skills commonly required by the courses in our program.

Students will discuss how faith and science interact and will learn how faith speaks into choices made during their career.

B. Student Learning Outcomes and Measurements

	Student Learning Outcome	Measurement
1	Demonstrate an ability to research, formulate, and justify ethical decisions faced by physicists using critical thinking skills.	Homework, quizzes, and exams
2	Attain an ability to collect and analyze data, process statistics, and visualize data.	Homework, quizzes, and exams
3	Apply math and science concepts to physics problem solving	Homework, quizzes, and exams
4	Comprehend and apply the design process to solve complex problems	Homework, quizzes, and exams
5	Use computational tools for processing, analyzing, and visualizing data, modeling physical processes, and finding solutions.	Homework, quizzes, and exams

C. Text and Resources

Give the full publication information of the textbook/s and other required resources and outside readings. For **combined undergraduate/graduate** courses, make two lists:

A. full publication information; label **Undergraduate**.

No text will be required. All materials will be provided through canvas.

B. full publication information; label **Graduate**.

None

4. Supporting Documentation

Required of all applications	
1	Approval Chart for Curriculum Changes

2	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
4	Library — Submit new course application and syllabus to the Library dean's office. Attach the Library's memo.
Attach if applicable	
5	Content Overlap — Include one document for each course you listed in Section 1Y. Attach statement from instructor/dept chair of existing course justifying the new offering.
6	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location(s).
7	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
8	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
9	Justification — Attach any documents to which you refer in Section 2B.

PHYS 115: Introduction to Physics

About the Course

Course number and title: PHYS 115 Introduction to Physics

Credit hours: 2

Semester and year: Fall 2026

Meeting time and place: TBA

Prerequisites: MATH 124 or simultaneous enrollment in MATH 124

Corequisites: PHYS 116

Catalog description: An introduction to the career fields of physics. Topics include sub disciplines within physics, tools and methods used in these disciplines, and the processes of modeling and problem solving. Computational analytical and experimental design tools will also be introduced. Prerequisite: MATH 124 or simultaneous enrollment. Corequisite: PHYS 116.

Intended audience: This course is intended for first semester freshmen majoring in Physics

About the Instructor

Professor: Dr. Mike Daugherty

Office location: OSC 121C

Office hours: TBA

Phone number: 325-674-5055

Email address: mike.daugherty@acu.edu

Mission Statements

ACU Mission: The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

College Mission: The mission of the Onstead College of Science and Engineering is to explore and understand God's creation in the natural world and apply the acquired knowledge and principles to address its issues and challenges.

Department Mission: The ACU physics program strongly supports the university's mission of educating students for Christian service and leadership throughout the world. In support of this mission, ACU physics graduates will attain:

- A deep and broad understanding of physics principles and practices as evidenced by professional employment, continued professional development and graduate study in physics or other professional fields.

- An extensive knowledge of the problem solving and experimental design skills unique to physics professionals.
- A thorough understanding of Christian service and leadership as shown in commitments to professionalism, ethics, and service and leadership within the physics profession, church, and society.

Unique Christian Perspective: This course welcomes new students into a lifelong journey of discovery. In the ACU Physics department we take both science and faith seriously. Students will discuss how faith and science interact and will learn how faith speaks into choices made during their career.

Course Content

Outline of topics: This course lays the foundation for a future career in physics. Major topics include:

- Careers: understanding the many ways a physics education can be used in the workforce, including common fields of employment, job titles, and subfields of physics
- Professional Skills: recognizing that oral and written communication and teamwork skills are vital elements of success
- Problem Solving: the creative endeavor of designing solutions to complex problems
- Ethics: appreciating the intersecting core values of faith and science and how real-world conflicts exert pressures on them
- Physics Fundamentals: developing foundational skills for quantitative problem solving by studying units, estimation, and vectors
- Computational Tools: gaining a basic proficiency in Microsoft Excel and Python for computation, analysis, and visualization

Format of Class: This class consists of lecture and computational lab components (in addition to the required PHYS 116 laboratory). The lecture typically includes a reading quiz before class and homework to put the lessons into practice. The computational lab is for hands-on proficiency using Excel and Python.

Instructional Materials

Textbook: None

Other materials:

- The Careers Toolbox for Undergraduate Physics Students is a free resource from the American Institute of Physics
- Microsoft Excel is available to all ACU students at no additional cost
- Python and Google Colaboratory are freely available tools

Course Outcomes

By the end of this course students will be able to:

	Student Learning Outcome	Measurement
1	Demonstrate an ability to research, formulate, and justify ethical decisions faced by engineers and physicists using critical thinking skills.	Homework, quizzes, and exams
2	Attain an ability to collect and analyze data, process statistics, and visualize data.	Homework, quizzes, and exams
3	Apply math and science concepts to physics problem solving	Homework, quizzes, and exams
4	Comprehend and apply the design process to solve complex problems	Homework, quizzes, and exams
5	Use computational tools for processing, analyzing, and visualizing data, modeling physical processes, and finding solutions.	Homework, quizzes, and exams

Class Activities and Grading

Homework

Homework will be assigned weekly and is a vital part of learning. **NO LATE WORK WILL BE ACCEPTED.** Each student is expected to turn in his or her own work. Students are strongly encouraged to work in groups, but each student is responsible for the material.

Quizzes

Quizzes will be given frequently on Canvas and during class. **NO LATE WORK WILL BE ACCEPTED.** Thus, it is important that you be in class and on time to complete the quiz. Students who will miss class for University-approved absences must contact their instructor before the deadline. No unauthorized help may be given or received on the quizzes.

Exams

Student learning will be assessed with midterm and final exams. No unauthorized help may be given or received on the exams.

Grading

The final course grade is calculated using:

Activities	Weighting
Attendance and Participation	10%
Homework	50%
Quizzes	10%
Midterm Exam	10%
Final Exam	20%
Total	100%

The final letter grade is assigned as:

Range of Points	Final Letter Grade
90%-100%	A
80%- 89%	B
70%-79%	C
60%-69%	D
Below 59%	F

University Resources

I care about your class experience. The university also has a number of resources in place to support the ACU community both in this class and all aspects of university life.

Reporting Violations / Concerns / Complaints

Incident reports alleging violations of Student Conduct or concerns/complaints can be submitted [here](#). Please use the form to submit information about an incident to Student Life / Office of the Dean of Students.

SOAR (Student Opportunities, Advocacy, and Resources):

SOAR partners with faculty, staff, parents and students to assist ACU students and connect them to resources available to support their path to success. For more information about SOAR or to make a SOAR recommendation, see <https://acu.edu/soar-program/>.

Mental Health Resources

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. Abilene Christian University is committed to supporting students addressing any of these concerns.

You can contact the [Medical and Counseling Care Center](#) at counseling@acu.edu, or by calling 325-674-2626. In addition, you can access free confidential counseling services through the Timely Care app by downloading their app on any device.

In a crisis situation contact the National Suicide Prevention Hotline open 24/7 by dialing 988, or call the Police at 911.

Another wonderful resource to help you learn how to manage your stress as a student can be found in your Compass app. The Wellness Badge is designed to help you understand how to manage your stress and how to do so on our campus. Completing each of the pathways earns you a chance at incentives, and completing the entire badge will earn you 200 chapel points. You can find the badge in your Compass app.

University and Course Policies

ADA Compliance Policy:

Abilene Christian University is dedicated to removing barriers and opening access for students with disabilities in compliance with ADA and Section 504 of the Rehabilitation Act. The ACU website provides more information at <https://acu.edu/about/uap/overview-2/about-2/>.

Please contact me to discuss any approved accommodations that you require for this class.

Title IX Policy:

At ACU, we strive to comply with all applicable legal requirements prohibiting, preventing, and responding to sexual misconduct against any member of the ACU community. The full Title IX policy and process can be found at <https://acu.edu/human-resources/title-ix-and-sexual-misconduct-information/>.

Academic Integrity Policy:

Academic integrity is demonstrated by behavior that honors the learning environment, regardless of setting, context, location or modality. ACU's Academic Integrity Policy can be found at <https://acu.edu/office-of-the-provost/academic-policies/>.

Attendance Policy:

Attendance is expected at all class sessions. It is also expected that you arrive promptly. If you are absent or tardy it will negatively affect your participation, homework, and quiz grades. Typically, classes will involve the presentation and discussion of new material, discussion of textual reading assignments, or the consideration of problems to solve. Occasionally, students will work in small groups to solve problems. If you miss class and have not contacted your professor, you will receive a zero for any work given during class or homework due that day. If you know you will be absent for any reason, contact your professors before class.

Technology Use: During class time students must be present and paying attention. Allowed technologies such as phones and laptops will vary depending on class activities. Students must follow any technology restrictions for the given day. If you have any concerns please contact your instructor outside of class. AI technology is a powerful tool that can both help and hinder learning. The instructor may place limitations on what level of AI use is appropriate for a given

assignment.

Calendar

All assignment dates are posted in Canvas. The tentative course schedule is given below. This schedule is subject to change.

Week	Lecture	Computation Lab
1	Introduction	Excel formulas
2	Careers in Physics	Excel statistics
3	Design	Excel plots
4	Teamwork	Excel fits
5	Professional Communication	Python as calculator
6	Problem Solving	Python packages
7	Units	Python loops 1
8	Units	Python loops 2
9	Estimation	Python arrays
10	Estimation	Python plotting
11	Vectors	Python plotting
12	Vectors	Python import data
13	Vectors	Python import data
14	Faith and Science	Python fit data
15	Ethics	Python fit data
Finals Week	Final Exam	

Dr. Larry Isenhower
Department of Engineering and Physics
Onstead Science Center (OSC) 123E
(325) 674-6326
ldi00a@acu.edu

April 2, 2026

Re: Review of PHYS 115

Dear Dr. Isenhower,

Thank you for submitting the application for course PHYS 115: Introduction to Physics. I have reviewed it based on the [ACU New Course Application Guidelines](#). I find the syllabus to be meeting all requirements.

Please note that this letter is not meant to be a final approval in the course application process. Your department chair and/or members of the council may have questions or comments of their own.

If you have any questions, please feel free to let me know. Please also let me know if we can be of any help in the design and facilitation of this course.

Sincerely,

A handwritten signature in black ink that reads "Amy Boone". The script is cursive and fluid, with the first letters of the first and last names being capitalized and prominent.

Amy Boone, M.Ed.
Teaching and Learning Specialist

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

MEMORANDUM

DATE: March 26, 2026
TO: Dr. Larry Isenhower
FROM: Mark McCallon, Associate Dean for Library Services
RE: Course Application for PHYS 115 – Introduction to Physics

After reviewing the course application and syllabus, the library can support the proposed course. Please contact Mark McCallon (mccallonm@acu.edu), Librarian Liaison, if you will require additional library resources in the future for supporting the course. Thank you for letting us review the course application.