

Abilene Approval Chart for Curriculum Changes

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

Course Number: PHYS 116 **or Degree Plan(s):**

	Campus-Level Academic Review¹						
	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	I
19.	Policies governing academic probation and suspension	-	-	-	-	A	A	A	A	I
20.	Requirements for graduating with honors	-	-	-	-	A	A	A	A	I
	Change to a Degree Plan									
21.	Educational Program — Add or Discontinue ²³	A	A	A	A	A	A	A	A	I
22.	Educational Program — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I
23.	Minor — Add or Discontinue	A	A	A	A	A	A	-	A	I
24.	Minor — Discontinue (Provost-proposed)	R	-	R	A	A	A	-	A	I
25.	Degree — Add or Discontinue	A	A	A	A	A	A	A	A	I
26.	Degree — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I

	Change to General Education Requirements for Undergraduates (System)									
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.

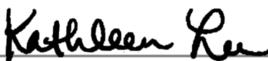
⁴ When a department/school or dean proposes closing a program, approval routing follows the typical process beginning with the department/school. An administrative proposal by the provost or senior vice president for academic affairs would follow the "provost-proposed" routing on the chart.

Department/School(s)

	03/26/26
Chair Signature	Date

Chair/Program Director Signature	Date
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College Academic Council(s)

	04/16/2026
Chair Signature	Date

Chair Signature	Date
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	Dean(s) 4/16/2026
Signature	Date

Signature	Date
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Teacher Education Council

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

Signature	Date
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Provost

Signature	Date
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University General Education Council

Signature	Date
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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 116
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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 Laboratory
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	1
G1	Number of Lecture Contact Hours	0
G2	Number of Lab Contact Hours	3
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	1
K	Course Schedule Type	Lab (LAB) 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)	A laboratory class demonstrating and exploring topics covered in PHYS 115. Physical concepts such as force, work, and energy will be illustrated as well as using these concepts within experimental design. Prerequisite: MATH 124 or simultaneous enrollment. Corequisite: PHYS 115 . Course fee.
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 115
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?	Yes 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 we need this course due to the upcoming department split.
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 116 in all PHYS 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 part is being removed from the ENGR 116 course.

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

B. Student Learning Outcomes and Measurements

	Student Learning Outcome	Measurement
1	Students will be able to understand physical concepts such as forces, work, energy, and conservation laws.	Project Reports and Presentations
2	Students will be able to use engineering and physics tools to collect, analyze, and present data.	Project Reports and Presentations, class assignments
3	Students will be able to appreciate the role of teamwork in experiments and experimental design.	Team Effectiveness Survey
4	Students will be able to appreciate real work constraints in the experimental design process.	Project Reports and Presentations
5	Students will be able to understand the importance of using scientific software to create models to aid in design and solve real world problems.	Project Reports and Presentations, class assignments

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 required text. Course materials are delivered as needed via Canvas or other online course management system.

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.

6. Departmental Resources

Various types of lab equipment will be used to support this course.

7. Resources

The machine shop and build space in Bennett Gym will be utilized during portions of this course. Supplies for the build project will be purchased using the course lab fees. Students are given a set budget to ensure costs do not exceed these fees.

8. Expenses

A student TA may be needed depending on class size. Departmental student worker funds will cover this cost.

About the Course

Course number and title: PHYS 116 – Introduction to Physics Lab

Credit hours: 1 credit hours

Meeting place: Bennett Gymnasium 114 or Bennett Gymnasium 219

Meeting time:

L1: M 2:00 PM – 4:50 PM

L2: T 1:30 PM – 4:20 PM

L3: W 2:00 PM – 4:50 PM

L4: R 1:30 PM – 4:20 PM

Prerequisites/corequisites: Corequisite: PHYS 115 Introduction to Physics.

Catalog description: A laboratory class demonstrating and exploring topics covered in PHYS 115. Physical concepts such as force, work, and energy will be illustrated as well as using these concepts within experimental design. Prerequisite: MATH 124 or simultaneous enrollment. Corequisite: PHYS 115. Course fee.

Intended audience: This lab is required for students taking PHYS 115.

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 College of Science and Engineering is to educate students for worldwide Christian service and leadership through programs of study and other learning experiences that blend a liberal arts education with professional and career education.

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: During the labs, the students will learn to observe the properties of God's creation.

Course Content

Outline of topics: The following topics will be covered on the course.

- Experimental Design
Process
- Technical Documentation
- Technical Presentations
- Shop Tools
- Excel

Format of Class

Format of Class: This course is focused around a team-based, semester long design project. Most class meetings will consist of lecture, discussion, and hands-on activities. The students will use concept generation techniques to develop design alternatives. They will learn to use shop tools and construct prototypes. Finally, students will learn to document and present their designs. The instructor will be available to mentor the students through the design process.

Instructional Materials

Textbook: No textbook is required. Students will be provided with instructional materials through Canvas. Students will need a device that can access Canvas and Excel.

Learning Outcomes

Course goal: The goal of this course is for students to complete a project using an experimental design process, while beginning to develop professional skills.

Competencies: Students are expected to obtain the following competencies, which will be measured throughout the course using the following instruments.

	Competency	Measurement Instrument
1	Students will be able to understand physical concepts such as forces, work, energy, and conservation laws.	Project Reports and Presentations
2	Students will be able to use physics tools to collect, analyze, and present data.	Project Reports and Presentations, Excel Assignment
3	Students will be able to appreciate the role of teamwork in experiments and experimental design.	Team Effectiveness Survey
4	Students will be able to appreciate real work constraints in the experimental design process.	Project Reports and Presentations
5	Students will be able to understand the importance of using scientific software to create models to aid in design and solve real world problems.	Project Reports and Presentations, Excel Assignment

Assessment and Grading

Assessment activities: All assignments in the course are graded assessments. The table below is a tentative point breakdown and may be modified at any time.

Assignments	Quantity	Points	Total Points
Lab Assignments	20	20	400
Proposal	1	150	150
Design Report	1	100	100
Presentation	1	100	100
Demonstration	1	100	100
Teamwork	1	100	100
Total Points			950

Final grade calculation: The final grades will be calculated by dividing the total points earned by the total points assigned. The final letter grades will be assigned as indicated in the table below.

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

Extra credit: Extra credit will not be provided for this course.

Grading Disagreement: If students feel that any assignment was not fairly assessed, they are encouraged to meet with the professor to discuss their assignment.

University 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 Alpha Scholars Program facilitates disability accommodations in cooperation with instructors. In order to receive accommodations, you must be registered with Alpha Scholars Program, and you must complete a specific request for each class in which you need accommodations. If you have a documented disability and wish to discuss academic accommodations, please email alpha@acu.edu call their office directly at 325-674-2667.]”

Academic Integrity Policy:

“Academic integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent and therefore, are a form of lying. Such actions are contrary to behavioral norms that flow from the nature of God. Academic misconduct includes, but is not limited to, the following: 1) Failure to give credit to sources used in a work in an attempt to present the work as one's own, 2) Submission of papers or projects obtained from another source (e.g., research service or club paper file) as one's own, and 3) Falsifying information orally or in writing. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of your school, and the Dean of Student Life will be notified. See the full university policy, including how to appeal a decision, by following [this link](#).”

AI tools can be valuable for enhancing learning but should not be used simply to fulfill assignment requirements. Students are expected to submit original work and must avoid directly copying from AI tools. If you have any questions about the acceptable use of AI or need clarification on its role in your assignments, please consult your professor for guidance.

Anti-Harassment Policy:

As a professor, one of my responsibilities is to help create a safe learning environment on our campus. I also have a mandatory reporting responsibility related to my role as a professor. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep the information you share private to the greatest extent possible. When I am not able to keep your information confidential, I will only share it with responsible administrators on campus who can provide you with services and resources. I am required to share with the Title IX Coordinator information regarding sexual misconduct or harassment, dating or domestic violence or stalking that you report to me. If you would prefer to share information in a confidential setting, I encourage you to speak with someone in the [ACU Counseling Center](#). All of your options are available for review by clicking on the link to ACU's [policy](#).

Course Policies

Attendance:

“ACU expects students to attend and participate in all class and laboratory meetings. Students must adhere to the policies published in each course syllabus.”

In an on-ground course, attendance is defined as attending class and participating in class activities. In an online course, attendance is defined as completing weekly all weekly activities.

Students that have advance approval for absence are excused and can reschedule assignment due dates. Otherwise, the student has an unexcused absence and will receive no credit for missed assignments.

The expectation is that all students attend every class meeting.

Tardiness: Tardiness is defined as being late for a class meeting by any amount of time. Students are encouraged to show up for class on time. Students that arrive after attendance is taken will be marked as tardy and will only receive half of their credit for participation.

Participation: Participation is defined as taking part in class activities. Students are encouraged to participate in class activities as a method of learning. Most class assignments are graded, so not participating in class will affect your grade. Food and drink is not permitted in the lab.

Late assignments: Late assignments will not be accepted and will be assigned a grade of 0 points. Late assignments will affect your grade as you will not receive credit.

Technology use: Lab assignments will all be administered through Canvas. Students must bring a device that can access Canvas. Technology use to not permitted unless it is being used for a class assignment.

Calendar

The following calendar is tentative and may be modified at any time. Please refer to Canvas for specific assignment due dates.

Week	Topic	Assignments
Week 1	Laboratory Introduction and Safety	
Week 2	Community Building and Project Kickoff	Project Teams Assigned
Week 3	Teamwork Discussion, Design Challenge, Project Introduction, and Kinematics Lab	Project Assigned
Week 4	Concept Generation Discussion	
Week 5	Power Tools, Prototyping, Design Selection, Proposal Writing, Budgeting	Proposal Assigned
Week 6	Proposal Due, Proposal Peer Review	
Week 7	Construction of Proposed Design Performance Reviews	
Week 8	Testing, Design Revision	
Week 9	Testing, Design Revision Report Writing and Presentation Slides	Design Report Assigned
Week 10	Design Verification and Testing	
Week 11	Report Writing, Presentation Slides and Design Verification	
Week 12	Design Expo	
Week 13	Project Presentations Final Design Report Due	
Week 14	NO CLASS – Thanksgiving	
Week 15	Deconstruction, Course Evaluation	



Request to Add or Change Course Fees

Course fees or changes to existing course fees must be approved and published in the ACU Catalog for the following year in order for them to be assessed on a student's account. Course fees which are not processed by February 1st will not be included in the fall catalog.

Request Date _____

Amount of Fee _____

Department Making Request _____

Contact Person _____

Semester and year for fee to begin _____

Check the appropriate fee category below:

FOAP: _____

☐ Fee is the same for every section and every student

☐ Fee applies to certain sections only

If fee applies to certain sections only, please specify below if it is a one-time fee for a single section or a repeating fee that will be applied on a regular schedule (e.g., a fee charged each time the course is taken in a summer session but not in the fall or spring).

This request applies to the following course (one per form):

Course Number / Section

Course Title

State the justification for your request below. You will be notified of final approval or denial.

The following signatures must be obtained before any request is approved.

Approved

Declined

Department Chair

Date

☐☐

College Dean

Date

☐☐

Provost

Date

☐☐

Vice President for Finance

Date

☐☐

If approved by all above, route to:

Controller

FOAP

Date Completed

Finance

Fee Code for use on course

Date Completed

Registrar's Office

Date Completed

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

M E M O R A N D U M

DATE: March 27, 2026
TO: Dr. Larry Isenhower
FROM: Mark McCallon, Associate Dean for Library Services
RE: Course Application for PHYS 116 – Introduction to Physics Laboratory

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.