

Abilene Approval Chart for Curriculum Changes

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

Course Number _____ or Degree Plan(s) PHYS-PHYM

State the requested change and reason. A memo may be attached if more space is necessary.

We are updating the PHYS-PHYM degree track to reflect changes to the Gen. Ed. menu. This required the removal of one major course and adding 2 hours of electives to keep the track to 128 hours. The CS 120 course was selected to be removed since other changes to our curriculum have added computer programming to the curriculum such as ENGR 117 and through general use of several courses in the curriculum.

Indicate the requested change.

	Change to a Course	Dept./School ¹	College	Dean	TEC	UGEC	AUAC/Grad	Provost	President
1.	Title (description unchanged)	A	A	A	I	–	I	I	I
2.	Description (not affecting content)	A	A	A	I	–	I	I	I
3.	Course term(s)	A	I	A	I	–	I	I	I
4.	Content (change of course outcomes)	A	A	A	I	–	I	A	I
5.	Number of hours (lecture, lab, contact)	A	A	A	A	–	A	A	I
6.	Course number within the hundred	A	A	I	I	–	I	I	I
7.	Course number beyond the hundred	A	A	A	A	–	A	A	I
8.	Prerequisites	A	A	A	I	–	I	I	I
9.	Course fee(s)	A	–	A	–	–	–	A	I
10.	From U to G <i>or</i> G to U	A	A	A	A	–	A	A	I
11.	Cross-list course	A	A	A	A	–	A	A	I
12.	Department of record	A	A	A	A	–	A	A	I
13.	Close a course	A	A	A	A	–	A	A	I
14.	New course (includes combining or splitting courses)	A	A	A	A	–	A	A	I

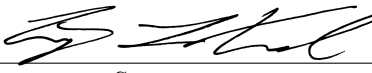
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	Change to the University Requirements (All Campuses)	Dept./School¹	College	Dean	TEC	UGEC	AUAC/Grad	Provost	Faculty	President	Trustees
1.	University Requirements — Change course outcomes of an included course ²	A	A	A	–	A	–	A	–	A	–
2.	University Requirements — Add or drop a required course from the University Requirements ²	A	A	A	–	A	–	A	A	A	–
3.	University Requirements — Add or drop a course from a menu within the University Requirements ²	A	–	–	–	A	–	A	–	A	–
4.	University Requirements — Change hours within a menu in the University Requirements ²	A	A	A	–	A	–	A	A	A	–
	Change to Catalog Information (for Campus)										
1.	General Requirements for Bachelor's Degrees and Associate's Degrees	–	–	–	–	–	A	A	A	A	–
2.	Policies governing academic probation and suspension	–	–	–	–	–	A	A	A	A	–
3.	Requirements for graduating with honors	–	–	–	–	–	A	A	A	A	–
	Change to a Degree Plan Proposed by Faculty or College										
5.	Educational Program — Revise ³	A	A	A	A	–	A	A	–	A	–
6.	Educational Program — Adopt/change admission requirements	A	A	A	A	–	A	A	–	A	–
7.	Educational Program — Add ³	A	A	A	A	–	A	A	A	A	I
8.	Educational Program — Discontinue	A	A	A	A	–	A	A	A	A	I
9.	GPA — Revise program-required GPAs	A	A	A	A	–	A	A	–	A	–
10.	Minor — Revise	A	A	A	I	–	I	I	–	I	–
11.	Minor — Add	A	A	A	A	–	A	A	–	A	–
12.	Minor — Discontinue	A	A	A	A	–	A	A	–	A	–
13.	Degree — Add	A	A	A	A	–	A	A	A	A	I
14.	Degree — Discontinue	A	A	A	A	–	A	A	A	A	I
	Change to a Degree Plan Proposed By Provost										
15.	Educational Program — Discontinue	R	–	R	A	–	A	A	A	A	I
16.	Minor — Discontinue	R	–	R	A	–	A	A	–	A	–
17.	Degree — Discontinue	R	–	R	A	–	A	A	A	A	I

¹ When an academic unit does not have a council, the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

² Courses that satisfy ACU's University Requirements will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

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.

Department/School Chair(s)	
	Feb 1, 2023
Signature	Approval date
Signature	Approval date

College Academic Council(s)	
	02/15/2023
Signature	Approval date
Signature	Approval date

Dean(s)	
	Mar 1, 2023
Signature	Approval date
Signature	Approval date

Teacher Education Council	
Chair's signature	Approval date

University General Education Council	
Chair's signature	Approval date

Abilene Undergraduate Academic Council	
Chair's signature	Approval date

Graduate Council	
Chair's signature	Approval date

Provost	
Signature	Approval date

Faculty	
Chair of Faculty Senate	Approval date

President	
Signature	Approval date

Physics, Medical Physics, BS (PHYS-PHYM)

BS: Physics Degree Plan (PHYS)

General Departmental Requirements

Physics majors must develop mathematical skills as well as experimental, theoretical, and computational abilities. If the student does not qualify to take Precalculus II ([MATH 124](#)) when the student enters ACU, his or her graduation may be delayed.

University Requirements

Please see the [University Requirements](#) section of this catalog.

Major Requirements

Physics

- [ENGR 115 - Introduction to Engineering and Physics](#) Credit Hours: 1
- [ENGR 116 - Introduction to Engineering and Physics Laboratory](#) Credit Hours: 1
- [ENGR 117 - Computational Tools for Engineering and Physics](#) Credit Hours: 1
- [PHYS 220 - Engineering Physics I](#) Credit Hours: 3 *
- [PHYS 221 - Engineering Physics I Laboratory](#) Credit Hours: 1
- [PHYS 222 - Engineering Physics II](#) Credit Hours: 3 *
- [PHYS 223 - Engineering Physics II Laboratory](#) Credit Hours: 1
- [PHYS 330 - Modern Physics](#) Credit Hours: 3* ~~delete~~ *
- [PHYS 331 - Modern Physics Laboratory](#) Credit Hours: 1
- [PHYS 362 - Optics](#) Credit Hours: 3
- [PHYS 363 - Optics Laboratory](#) Credit Hours: 1
- [PHYS 379 - Philosophy, Religion and Science](#) Credit Hours: 3 *
- [PHYS 497 - Physics Capstone I](#) Credit Hours: 2 (capstone and writing- intensive course)
- [PHYS 498 - Physics Capstone II](#) Credit Hours: 2 (capstone course)
-
- *Hours may also fulfill university requirements and are not included in total major hours

Mathematics

- [MATH 185 - Calculus I](#) Credit Hours: 3 *
- [MATH 186 - Calculus II](#) Credit Hours: 3
-
- *Hours may also fulfill university requirements and are not included in total major hours

Total: 17 20 Credit Hours

Medical Physics (PHYM)

- [BIOL 121 - Introductory Biology I](#) Credit Hours: 3
- [BIOL 122 - Introductory Biology I Laboratory](#) Credit Hours: 1
- [BIOL 123 - Introductory Biology II](#) Credit Hours: 3
- [BIOL 124 - Introductory Biology II Laboratory](#) Credit Hours: 1
- [BIOL 492 - Physiology](#) Credit Hours: 3
- [CHEM 131 - General Chemistry Laboratory I](#) Credit Hours: 1
- [CHEM 133 - General Chemistry I](#) Credit Hours: 3
- [CHEM 132 - General Chemistry Laboratory II](#) Credit Hours: 1
- [CHEM 134 - General Chemistry II](#) Credit Hours: 3
- [CHEM 221 - Organic Chemistry Laboratory I](#) Credit Hours: 1
- [CHEM 223 - Organic Chemistry I](#) Credit Hours: 3
- ~~[CS 120 - Programming I](#) Credit Hours: 3~~ delete this course
- [MATH 286 - Calculus III](#) Credit Hours: 3
- [MATH 325 - Linear Algebra](#) Credit Hours: 3
- [MATH 361 - Ordinary Differential Equations](#) Credit Hours: 4
- [PHYS 135 - Introduction to Electric Circuits](#) Credit Hours: 3
- [PHYS 136 - Introduction to Electric Circuits Laboratory](#) Credit Hours: 1
- [PHYS 360 - Electricity and Magnetism](#) Credit Hours: 3
- [PHYS 461 - Nuclear Physics](#) Credit Hours: 3
- [PHYS 463 - Math of Physics and Engineering](#) Credit Hours: 3
- [PHYS 481 - Thermodynamics](#) Credit Hours: 3
- [PHYS 491 - Quantum Mechanics](#) Credit Hours: 3

Total: 55 52 Credit Hours

Electives

Minimum - 0 2 Credit Hours

Total Major Hours: 72 74

Other Graduation Requirements

Minimum grade for PHYS courses: C

Minimum GPA for graduation: 2.00

Minimum advanced hours: 33

Minimum total hours: 128

*Courses numbered 0** do not count in minimum hours required for degree.*

Medical physics recommended courses:

Wisconsin:

Physics – EP, modern, and 3 upper level

Math – cal, DE, Fourier analysis, and linear

Chem – through organic

Bio – 1 year of bio plus introductory physiology

UTSA medical physics track

Physics – EP and 3 upper level

Math – cal and DE

Chem – 1 semester Gen Chem

CS – 1 semester

UTSA radiation Bio

Bio - 2 years of courses

Chem – Gen and organic chem, and biochem

Physics – basic physics

MD Anderson

Physics – 3 or more advanced physics courses

Math – ODE and Cal 3, linear and stats are very good too

CS – “these are viewed favorably”

Bio – “viewed favorably”

Chem – “viewed favorably”