

# Program Change Request

Date Submitted: 10/05/18 10:03 am

Viewing: **BA-PHYS : Physics - BA**

Last approved: 10/11/17 9:55 am

Last edit: 11/08/18 8:15 pm

Changes proposed by: skessler

Catalog Pages Using [Physics - BA](#)  
this Program

## Contact(s)

Name	E-mail	Phone
Sherree Kessler	skessler@tamu.edu	9794585948

Academic level	Undergraduate
Effective Term	2019-2020
Department	Physics and Astronomy
College	Science
Program type	Degree
Degree designation	BA - Bachelor of Arts
With a major in	Physics (PHYS)
Associated Program	<b>Not Applicable</b>
Catalog Program Title	Physics - BA
CIP and Fund code	40080100

## Rationale for Proposal

**PHYS 218 and 208 have been replaced by two new PHYS classes, with separate labs. Physics majors will take PHYS 206 (3 hours) and PHYS 226 (1 hour) beginning in Spring 2019, and PHYS 207 (3 hours) and PHYS 227 (1 hour) beginning in Summer 2019. For spring and summer, these labs will be PHYS 289s.**

**Additionally, the Dept. UCC has approved a change from requiring ENGL 104 to requiring ENGL 103 or 104 (rule A). They would also like to exclude THAR 407 as an acceptable communication elective (rule B).**

**Finally, the Dept. UCC would like to exclude all 485 and 491 (PHYS and ASTR) from the Science and Technical Elective , and allow ASTR courses 300 - 499 to meet the Science and Technical Elective (Rule N). ~~The College UPC voted to allow all lower level AERS, MLSC, NVSC and MATH 150 count toward free/general electives. Also removing and adding courses to courses not allowed as free electives.~~**

Program hours	120
Is this program eligible for financial aid?	Yes
Will program hours change (increase/decrease) due to the proposed curriculum changes?	No
Program delivery mode	

## In Workflow

1. **PHYS Department Head**
2. **Curricular Services Review**
3. **SC Committee Preparer UG**
4. **SC Committee Chair UG**
5. **SC College Dean UG**
6. **UCC Preparer**
7. **UCC Chair**
8. **Faculty Senate Preparer**
9. Faculty Senate
10. Provost II
11. President
12. Curricular Services

## Approval Path

1. 09/28/18 3:26 pm  
Lewis Ford (a-ford): Approved for PHYS Department Head
2. 10/04/18 11:16 am  
Angel Mario Carrizales (carri1214): Rollback to Initiator
3. 10/05/18 10:06 am  
Lewis Ford (a-ford): Approved for PHYS Department Head
4. 10/08/18 10:11 am  
Angel Mario Carrizales (carri1214): Approved for Curricular Services Review
5. 10/08/18 10:12 am  
Sara Thigpin (sarathigpin): Approved for SC Committee Preparer UG
6. 10/08/18 11:01 am  
Lucas Macri (lmacri): Approved for SC Committee Chair UG
7. 10/08/18 11:10 am  
Lucas Macri (lmacri): Approved for SC College Dean UG
8. 10/08/18 1:53 pm  
Sandra Williams (sandra-williams): Approved for UCC Preparer
9. 11/05/18 2:52 pm  
Sandra Williams (sandra-williams): Approved for UCC Chair

On-campus

## History

1. Aug 30, 2016 by Angela Allensworth (arankin)
2. Aug 30, 2016 by Angela Allensworth (arankin)
3. Aug 30, 2016 by Angela Allensworth (arankin)
4. Feb 23, 2017 by Sara Thigpin (sarathigpin)
5. Oct 5, 2017 by Angela Allensworth (arankin)
6. Oct 5, 2017 by Angela Allensworth (arankin)
7. Oct 11, 2017 by Angela Allensworth (arankin)

## Catalog Program Requirements

### Plan of Study Grid

		Semester Credit Hours
First Year		
Fall		
<a href="#">CHEM 107</a>	General Chemistry for Engineering Students	4
& <a href="#">CHEM 117</a>	and General Chemistry for Engineering Students Laboratory 1	
<a href="#">ENGL 104</a>	Composition and Rhetoric	3
or <a href="#">ENGL 103</a>	or Introduction to Rhetoric and Composition	
<a href="#">MATH 171</a>	Analytic Geometry and Calculus 1	4
<a href="#">PHYS 101</a>	Freshman Physics Orientation 1	1
<a href="#">American history elective 2</a>		3
	Semester Credit Hours	15
Spring		
<a href="#">PHYS 102</a>	Freshman Physics Orientation II 1	1
<del>PHYS 218</del>	<del>Mechanics-2</del>	<del>4</del>
<a href="#">PHYS 206</a>	<b>Newtonian Mechanics for Engineering and Science</b>	<b>4</b>
& <a href="#">PHYS 226</a>	<b>and Physics of Motion Laboratory for the Sciences 1</b>	
<a href="#">MATH 172</a>	Calculus 1	4
<a href="#">American history elective 2</a>		3
<a href="#">Language, philosophy and culture elective 2</a>		3
	Semester Credit Hours	15
Second Year		
Fall		
<a href="#">MATH 221</a>	Several Variable Calculus 1	4
<a href="#">MATH 308</a>	Differential Equations 1	3
<del>PHYS 208</del>	<del>Electricity and Optics-2</del>	<del>4</del>
<a href="#">PHYS 207</a>	<b>Electricity and Magnetism for Engineering and Science</b>	<b>4</b>
& <a href="#">PHYS 227</a>	<b>and Electricity and Magnetism Laboratory for the Sciences 1</b>	
<a href="#">PHYS 221</a>	Optics and Thermal Physics 1	3
	Semester Credit Hours	14
Spring		
<a href="#">PHYS 225</a>	Electronic Circuits and Applications	4
<a href="#">PHYS 309</a>	Modern Physics 1	3
<a href="#">PHYS 331</a>	Theoretical Methods for Physicists I 1	3
Elective 3		6
	Semester Credit Hours	16
Third Year		
Fall		
<a href="#">PHYS 302</a>	Advanced Mechanics I	3
<a href="#">PHYS 304</a>	Advanced Electricity and Magnetism I	3
<a href="#">PHYS 332</a>	Theoretical Methods for Physicists II	3
<a href="#">POLS 206</a>	American National Government	3
<a href="#">Social and behavioral science elective 2</a>		3
	Semester Credit Hours	15
Spring		
<a href="#">PHYS 327</a>	Experimental Physics I 5	2
<a href="#">PHYS 328</a>	Experimental Physics II 5	1
<a href="#">PHYS 412</a>	Quantum Mechanics I	3
<a href="#">POLS 207</a>	State and Local Government	3

<a href="#">Communication elective</a> 4	3
Electives 3	3
Semester Credit Hours	15
Fourth Year	
Fall	
Science or technical elective 7	3
Electives 3	12
Semester Credit Hours	15
Spring	
<a href="#">PHYS 401</a> Computational Physics 6	3
<a href="#">Creative arts elective</a> 2	3
Electives 3	9
Semester Credit Hours	15
Total Semester Credit Hours	120

1A physics major must complete the foundation courses ([PHYS 101](#), [PHYS 102](#), [PHYS 206/PHYS 226](#), [PHYS 207/PHYS 227](#), [PHYS 221](#), [PHYS 309](#), [PHYS 331](#), [CHEM 107/CHEM 117](#), [MATH 171](#), [MATH 172](#), [MATH 221](#), [MATH 308](#)) with a grade of C or better and have a 2.0 cumulative GPR before taking non-foundation upper-level physics courses.

2Any course in this category from the approved University Core Curriculum list of courses.

3A minor is required and, along with other free electives, should be chosen in consultation with the student's advisor. Three hours must be in the area of International and Cultural Diversity, and three hours must be in the area of Cultural Discourse. These may be in addition to other University Core Curriculum courses, or if a course in this category satisfies another area of the Core, it can be used to meet both requirements.

4Any approved Communication course, except [THAR 407](#).

5[PHYS 327](#) is an approved W course. [PHYS 328](#) is an approved C course.

6 To register for [PHYS 401](#) a student must be able to program in a high level language.

7Any upper-division ASTR or PHYS course, or an approved upper-division science or technical elective (except 485 and 491).

Additional information [10-11-17 Editorial update to Footnote per Sherree Kessler.](#)

Required Proposal [201610211748.pdf](#)

Forms [PresidentApprovalFacultySenateItems121216.pdf](#)

[PHYS BSBA Deg Ed141-201819.pdf](#)

[Updated Degree Eval - BA-PHYS - Fall 2019 - 2.pdf](#)

Reviewer Comments **Angel Mario Carrizales (carri1214) (10/04/18 11:16 am):** Rollback: The Life & Physical science area only list 4 hours; This area needs to be no less than 9 hours. Please add the courses that are used to meet the Core Life and Physical Science requirements in this program. I recommend to move PHYS 206/ 216 and PHYS 207/217 from Major Coursework area to the Life & Physical Area and adjust the area hours accordingly.

**Angel Mario Carrizales (carri1214) (10/08/18 10:11 am):** Initial concerns approved.

**Angel Mario Carrizales (carri1214) (10/08/18 10:14 am):** Correction. Initial concerns addressed.

**Sandra Williams (sandra-williams) (11/05/18 2:52 pm):** UCC approved November 2018.


[Print](#)

# Detail Requirements

Sherree D. Kessler  
Oct 04, 2018 11:39 am

Viewing: [Degree Evaluation \(DEGEVAL, , Email\)](#)  
[Change Student](#)

## Information for Degree Evaluation

 This is NOT an official evaluation.

## Print Instructions

### Program Evaluation

**Limitation Correspondence:** No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

**Limitation Combination:** Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

**Limitation** No more than 50% of courses required for the degree plan can be taken as Distance Education Courses for non-distance degree programs.

**Limitation** Only one of the following will satisfy the requirements for a degree: GENE 301, GENE 302, GENE 315 and GENE 320.

**Limitation** Only one of the following will satisfy the requirements for a degree: MATH 131, MATH 142, MATH 147, MATH 151 and MATH 171.

**Limitation** Only one of the following will satisfy the requirements for a degree: MATH 140, MATH 141 and MATH 166.

**Limitation** Only one of the following will satisfy the requirements for a degree: MATH 148, MATH 152 and MATH 172.

**Limitation** Only one of the following will satisfy the requirements for a degree: MATH 221, MATH 251 and MATH 253.

**Limitation** Only one of the following will satisfy the requirements for a degree: MATH 304, MATH 309, MATH 311 and MATH 323.

**Limitation** Only one of the following will satisfy the requirements for a degree: STAT 301, STAT 302 or STAT 303.

<b>Program :</b>	BA PHYS	<b>Catalog Term :</b>	Fall 2018 - College Station
<b>Campus :</b>	College Station	<b>Evaluation Term :</b>	Fall 2018 - College Station
<b>College :</b>	Science	<b>Expected Graduation Date :</b>	
<b>Degree :</b>	Bachelor of Arts	<b>Request Number :</b>	13
<b>Level :</b>	Undergraduate	<b>Results as of :</b>	Oct 04, 2018
<b>Majors :</b>	Physics	<b>Minors :</b>	
<b>Departments :</b>	Physics & Astronomy	<b>Concentrations :</b>	

	Met Credits		Courses	
	Required	Used	Required	Used
<b>Total Required :</b>	No	120.000	0.000	0
<b>Program GPA :</b>	Yes	.00	.00	
<b>Overall GPA :</b>	No	2.00	.00	
<b>Other Course Information</b>				
<b>Transfer :</b>		0.000		0

This is NOT an official evaluation.

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Area : Major Coursework ( ~~41.000 credits~~ ) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Subject	Course Title	Attribute	Credits
No	A.		PHYS 101	1hr								
No	AND	B.	PHYS 102	1hr								

No	AND	<del>C.</del> <del>PHYS 216 4hrs</del>	Must make a grade of 'C' or better.		
No	AND	<del>D.</del> <del>PHYS 268 4hrs</del>	Must make a grade of 'C' or better.	} move to Life Science please reletter	
No	AND	E. PHYS 221 3hrs	Must make a grade of 'C' or better.		
No	AND	F. PHYS 225 4hrs	Must make a grade of 'C' or better.		
No	AND	G. PHYS 304 3hrs			
No	AND	H. PHYS 309 3hrs			
No	AND	I. PHYS 412 3hrs	Must make a grade of 'C' or better.		
No	AND	J. PHYS 302 3hrs			
No	AND	K. PHYS 401 3hrs			
No	AND	L. PHYS 331 3hrs			
No	AND	M. PHYS 332 3hrs	Must make a grade of 'C' or better.		
No	AND	N. Science or Tech Elect 3hrs			
			Select from ASTR 317; PHYS 400-499; Science or Technical Elective*. *Consult with academic advisor for additional options.	→ 300-499 except PHYS 491 or 485 or ASTR	
				Total Credits and GPA	0.000

unofficial evaluation

Area : Communication ( 6.000 credits ) - Not Met

Met	Condition Rule	Subject	Attribute	Low High	Required Credits	Required Courses	Term	Subject Course Title	Attribute	Credits	
No		A.	ENGL 104 3hrs			or ENGL 103					
No	AND	B.	Communication Rqmt 3hrs								
										Select any course with the Communication [KCOM] attribute, except THAR 407	
										Total Credits and GPA	0.000

unofficial evaluation

Area : Mathematics ( 15.000 credits ) - Not Met

Met	Condition Rule	Subject	Attribute	Low High	Required Credits	Required Courses	Term	Subject Course Title	Attribute	Credits	
No		A.	MATH 171								
										Must make a grade of 'C' or better.	
No	AND	B.	MATH 172								
										Must make a grade of 'C' or better.	
No	AND	C.	MATH 221								
										Must make a grade of 'C' or better.	
No	AND	D.	MATH 308								
										Must make a grade of 'C' or better.	
										Total Credits and GPA	0.000

unofficial evaluation

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**Area : Life and Physical Sciences ( ~~4.000 credits~~ ) - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	CHEM 107 3hrs										
				Must make a grade of 'C' or better.									
No	AND	B.	CHEM 117 1hr										
				Must make a grade of 'C' or better.									
			C. PHYS 206 3hrs.										
			D. PHYS 226 1hr.										
			E. PHYS 207 3hrs.										
			F. PHYS 227 1hr.										
												Total Credits and GPA	0.000

unofficial evaluation

**Area : Language, Philosophy & Culture ( 3.000 credits ) - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	Lang, Phil, Culture Rqmt 3hrs										
Select any course with the Language, Philosophy and Culture attribute [KLPC].													
												Total Credits and GPA	0.000

unofficial evaluation

**Area : Creative Arts ( 3.000 credits ) - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	Creative Arts Requirement 3hrs										
Select three hours from any course with the Creative Arts attribute [KCRA].													
												Total Credits and GPA	0.000

unofficial evaluation

**Area : Social and Behavioral Sciences ( 3.000 credits ) - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	Social Science Rqmt 3hrs										
Select from courses with the Social and Behavioral Science attribute [KSOC].													
												Total Credits and GPA	0.000

unofficial evaluation

**Area : Citizenship ( 12.000 credits ) - Not Met**

**Description :** Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course Title	Attribute	Credits
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No		A.	American History Rqmt 6hrs										
Select from any course with the [KHIS] attribute.													
No	AND	B.	Political Science Rqmt 6hrs										

Take POLS 206 and POLS 207.

Total Credits and GPA

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**Area :** Writing Requirement ( 3.000 credits ) - Not Met

**Description :** This area requires 3 hours of courses with the UWRT and UCRT attribute.

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	C
							Credits	Courses						

No		A.	Writing Requirement												
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Only sections of PHYS 327 with the Writing attribute [UWRT] and sections of PHYS 328 with the Communication attribute [UCRT] may be used to satisfy this requirement.

Total Credits and GPA

unofficial evaluation

**Area :** General Electives ( 30.000 credits ) - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No		A.	General Electives 30hrs												
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Select from any 100-499 course not used elsewhere. (except ENGL 103; MATH 100-148, 165-166, 365-366; PHYS 201-202, 207, 208.)

Total Credits and GPA 0.000

unofficial evaluation

**Area :** Work Not Applied - Met

**Description :** See advisor for acceptable substitutions.

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	C
							Credits	Courses						

No		A.	Courses not applied												
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Total Credits and GPA

unofficial evaluation

**Area :** CLSC BA Required Minor - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Required	Required	Term	Subject	Course	Title	Attribute	Credits
							Credits	Courses						

No		A.	Required Minor												
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Minor requirement not needed if minor requirement is waived by the Dean's Office.

Total Credits and GPA 0.000

unofficial evaluation

**Area :** University Writing Requirement - Not Met

Met	Condition	Rule	Subject	Attribute	Low	High	Term	Subject	Course	Title	Attribute	Credits
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**Required Credits** **Required Courses**

No            A.    Writing Requirement

Two courses required.  
Only sections of PHYS 327 with the Writing attribute [UWRT]  
and sections of PHYS 328 with the Communication attribute [UCRT] may be used to satisfy this requirement.

Total Credits and GPA    0.000

unofficial evaluation

**Area : Int'l & Cult Diversity - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits
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No            A.    Int'l & Cultural Diversity 6hr

Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute).

Total Credits and GPA    0.000

unofficial evaluation

**Area : Foreign Language - Not Met**

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits
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No            A.    Foreign Language Rqmt

Complete one of the following:  
1. Two years of the same foreign language in High School.  
2. A two semester sequence of the same foreign language for University credit.

Total Credits and GPA    0.000

unofficial evaluation

**Area : Residence Requirement - Not Met**

**Description :** A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits
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No            A.    Residence - Major 12hrs

No            AND    B.    Residence 300-499 24hrs

Total Credits and GPA

unofficial evaluation

**Area : GPR-Major - Not Met**

**Description :** A GPR of 2.00 must be maintained in all major field courses.

Met	Condition	Rule	Subject	Attribute	Low	High	Required Credits	Required Courses	Term	Subject	Course	Title	Attribute	Credits
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No            A.    Major GPR 34+hrs

Includes PHYS 100-499; ASTR 314.

Total Credits and GPA