

Approval Chart for Curriculum Changes

A = Approve I = Information Item¹ R = Advise & Respond²

Course Number ENGR/PHYS 335 or Degree Plan(s) _____

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

Changes: 1) Name Change: "Introduction to Electric Circuits", 2) Number of hours: 3, 3) Course Number: 135, 4) Prerequisites: MATH 124 only, 5) Course description: the course number for the accompanying lab is changing from 336 to 136, and this should be reflected in the course description (SEE SUPPLEMENTAL .DOCX FILE FOR CATALOG EDITS)

This course is being reduced to 100-level with a prerequisite of MATH 124 (Precalculus II) because while the material coverage is largely remaining the same, the mathematical depth is being reduced so that students can take this course earlier in their career. The increase in instruction hours will better allow for comprehensive coverage of the fundamentals of circuit theory. This course will then serve as a prerequisite course in electric circuit theory upon which all other electronic courses in the department of Engineering and Physics will rely.

Circle the number that corresponds to the requested change. Degree plan changes are on the second page.

Change to a Course		COUNCIL ³							
		Dept./School	College Academic	Deans	TEC	UGEC	UUAC	GRAD	Provost
①.	Title (description unchanged)	A	A	A	I			I	I
②.	Description (not affecting content)	A	A	A	I			I	I
3.	Content (substantive change)	A	A	A	I			A	A
④.	Number of hours (lecture, lab, contact)	A	A	A	A			A	A
5.	Course number within the hundred	A	A	I	I			I	I
⑥.	Course number beyond the hundred	A	A	A	A			A	A
⑦.	Prerequisites	A	A	A	I			I	I
8.	Course fee(s)	A	--	A	--			A	I
9.	From U to G <i>or</i> G to U	A	A	A	A			A	A
10.	Cross list with another department: U or G level	A	A	A	A			A	A
11.	Department of record	A	A	A	A			A	A
12.	Open or close a course	A	A	A	A			A	A
13.	New course — See website for application and process. This change includes combining or splitting a course(s).	A	A	A	A			A	A

Note: 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.

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		COUNCIL ³							Board of Trustees
		Dept./School	College Academic	Deans	TEC	UGEC	UUAC	GRAD	
Change to a Degree Plan									
1.	University Requirements — Change in approved course content ⁶	A	A	A		A		A	--
2.	University Requirements — Add or drop a required course from the University Requirements chart ⁶	A	A	A		A		A	--
3.	University Requirements — Add or drop a course from a menu within the University Requirements ⁶	A	A	A		A		A	--
4.	University Requirements — Change hours within a menu on the University Requirements chart ⁶	A	A	A		A		A	--
5.	Major — Revision of major ^{4,5}	A	A	A		A		A	--
6.	Major — Adopt or change admission requirements	A	A	A		A		A	--
7.	Major — Add ^{4,5}	A	A	A		A		A	I
8.	Major — Discontinue (proposed by the department or college)	A	A	A		A		A	I
9.	Major — Discontinue (proposed by the Provost)	See below.							
10.	GPA — Revise major or cumulative requirement	A	A	A		A		A	--
11.	Minor — Revise course selection	A	A	A		I		I	--
12.	Minor — Add	A	A	A		A		A	--
13.	Minor — Discontinue (proposed by the department or college)	A	A	A		A		A	--
14.	Minor — Discontinue (proposed by the Provost)	See below.							
15.	Degree — Add	A	A	A		A		A	I
16.	Degree — Discontinue (proposed by the department or college)	A	A	A		A		A	I
17.	Degree — Discontinue (proposed by the Provost)	See below.							
18.	Any change to a graduate degree program	A	A	A		A		A	--

		COUNCIL ³							Board of Trustees
		Provost	Department	Dean	TEC	UUAC	Graduate	Faculty	
Provost-Proposed Change									
1.	Major/Graduate Program — Discontinue (proposed by the Provost)	A	R	R		A		A	I
2.	Minor — Discontinue (proposed by the Provost)	A	R	R		A		--	--
3.	Degree — Discontinue (proposed by the Provost)	A	R	R		A		A	I

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COUNCIL³

	Change to the Catalog Information	Dept./School	College Academic	Deans	UGEC	UUAC	GRAD	Provost	Faculty	President
1.	General requirements for graduation including course requirements that are common to all majors for all degrees ⁷	--	--	--		A		A	A	A
2.	Admission requirements	--	--	--		A		A	A	A
3.	Policies governing academic probation and suspension	--	--	--		A		A	A	A
4.	Requirements for graduating with honors	--	--	--		A		A	A	A
5.	Other academic policy changes	--	--	--		A		A	--	A

¹ Councils may request additional information about "Information" items. These items are approved as "Consent Agenda."

² The Dean and Department should respond to the Provost's recommendation to close a program in writing. Advise & Respond (R) requires that the voting body should receive the written responses at least one week prior to the vote.

³ All courses that meet University Requirements for general education must go through UGEC. Courses or degrees offered only to students seeking teacher certification must go through the Teacher Education Council. All undergraduate changes must go before the UUAC. All graduate degree plan changes must go through the Graduate Council.

⁴ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g., BA, BS). The university minimum for elective hours is 6, unless the requirements of external accrediting bodies make it impossible.

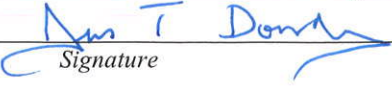
⁵ Program or course changes that apply to any major that includes Teacher Certification will be reviewed by the college, the Teacher Education Council (TEC), and then the UUAC.

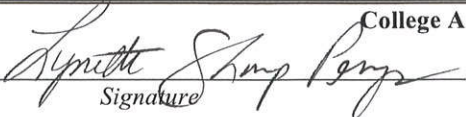
⁶ Courses that satisfy ACU's University Requirements (General Education) will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

⁷ The UUAC approved the clarification that "general requirements for graduation" means the enumerated items in the "General Requirements for Bachelor's Degrees" section of the catalog.

Revised 10-16-13

Curriculum/Catalog Changes Signature Page

Department/School Chair(s)	
 Signature	11/24/14 Approval date
_____ Signature	_____ Approval date

College Academic Council(s)	
 Signature	11-24-14 Approval date
_____ Signature	_____ Approval date

Dean(s)	
 Signature	11/25/14 Approval date
_____ Signature	_____ Approval date

Teacher Education Council	
_____ Chair's signature	_____ Approval date

General Education Council	
_____ Chair's signature	_____ Approval date

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

ENGR 335 135 Introduction to ~~Electronics~~ Electric Circuits (~~2-0-2~~) (3-0-3), spring. Basic electrical measurements and devices, introductory electronics. Emphasis on lab work. Intended for those who will use electronic instruments and methods in their profession. Concurrent enrollment in ENGR 336 136 is required. Prerequisite: ~~calculus precalculus II or concurrent enrollment in MATH 186~~ (MATH 124). Same as PHYS 335 135.

ENGR 336 136 Introduction to ~~Electronics~~ Electric Circuits Laboratory (0-3-1), spring. Concurrent enrollment in ENGR 335 135 is required. Same as PHYS 336 136.

PHYS 335 135 Introduction to ~~Electronics~~ Electric Circuits (~~2-0-2~~) (3-0-3), spring. Basic electrical measurements and devices, introductory electronics. Emphasis on lab work. Intended for those who will use electronic instruments and methods in their profession. Concurrent enrollment in PHYS 336 136 is required. Prerequisite: ~~calculus precalculus II or concurrent enrollment in MATH 186~~ (MATH 124). Same as ENGR 335 135.

PHYS 336 136 Introduction to ~~Electronics~~ Electric Circuits Laboratory (0-3-1), spring. Concurrent enrollment in PHYS 335 135 is required. Same as ENGR 336 136.

MATH 361 Ordinary Differential Equations	3	
PHYS 332/336 Introduction to Electric Circuits Lecture/Lab	4	4
PHYS 360 Electricity & Magnetism	3	
PHYS 371 Classical Mechanics	3	
PHYS 463 Math of Physics and Engineering	3	
PHYS 481 Thermodynamics	3	
PHYS 491 Quantum Mechanics	3	
PHYS 342/343 Instrumentation Lecture/Lab or		
PHYS 388 Network Analysis	3	
TOTAL	49	50
Computational Physics (PHYC)		
CS 130 Programming II and Data Structures	3	
MATH 341 Numerical Methods	3	
MATH 377 Statistical Methods I	3	
PHYS 451 Simulation and Modeling	3	
PHYS 453 Pattern Recognition	3	
Choose 3 additional hours from CS 300-499 or		
PHYS 300-499 (except 378)	3	
Choose 3 additional hours from PHYS 300-499 (except 378)	3	
TOTAL	21	
ELECTIVES		
Physics Track (PHYS)	10	9
Medical Physics (PHYM)	1	0
Engineering Science Technology (PHYA)	4	40
Engineering Physics (PHYN)	4	3
Computational Physics (PHYC)	32	
TOTAL MAJOR HOURS	72	
OTHER GRADUATION REQUIREMENTS		
Minimum grade for PHYS courses		C
Minimum GPA for graduation		2.00
Minimum advanced hours		33
Minimum total hours		128
<i>Courses numbered 0** do not count in minimum hours required for degree.</i>		

HIGH SCHOOL TEACHER CERTIFICATION PHYSICS AND MATHEMATICS (BS)

BS: HIGH SCHOOL TEACHER CERTIFICATION - PHYSICS AND MATHEMATICS DEGREE PLAN (PHMT)

UNIVERSITY REQUIREMENTS

Please see the University Requirements section of this catalog (page 39).

MAJOR REQUIREMENTS

Physics

PHYS 220 Engineering Physics I	(3) ¹
PHYS 221 Engineering Physics I Lab	(1) ¹
PHYS 222 Engineering Physics II	(3) ¹
PHYS 223 Engineering Physics II Lab	(1) ¹
PHYS 330/331 Modern Physics Lecture/Lab	4
PHYS 332/336 Introduction to Electric Circuits Lecture/Lab	4
PHYS 401 Secondary Science Methods	3
PHYS 497/498 Physics Capstone I/II (capstone and writing-intensive course)	4
TOTAL	15

Mathematics

MATH 185 Calculus I	(3) ¹
MATH 186 Calculus II	3
TOTAL	3

CONCENTRATIONS (CHOOSE ONE)

Physics and Mathematics (PHMT)

Choose 5 additional hours (3 must be advanced from PHYS

300-499 (except 378) 5

Math

MATH 187 Calculus Computer Lab	1
MATH 227 Discrete Mathematics	3
MATH 286 Calculus III	3
MATH 309 Algebraic Concepts for Teachers I	3
MATH 311 Geometric Concepts for Teachers I	3
MATH 361 Ordinary Differential Equations	3
MATH 377 Statistical Methods I	3
PHMT TOTAL	24

Composite Science – Engineering and Physics (PHCS)

Biology

BIOL 112/114 General Biology I/Lab	4
BIOL 113/115 General Biology II/Lab	4

Chemistry

CHEM 133/131 General Chemistry I/Lab	4
CHEM 134/132 General Chemistry II/Lab	4

Physics

Choose 8 additional hours (7 must be advanced from PHYS 300-499) 8

PHCS TOTAL 24

¹Hours (in parentheses) may also fulfill university requirements and are not included in total major hours

OTHER REQUIREMENTS

Teacher Education Requirements

EDUC 211 Educational Foundations and Multicultural Perspectives	(3) ¹
EDUC 221 Educational Psychology	(3) ¹
EDUC 412 Secondary Curriculum and Media (capstone course)	3
EDUC 432 Secondary Management and Methods (capstone course)	3
EDUC 476 Effective Strategies for English Language Learners	3
EDUC 490 Student Teaching (capstone course)	6
READ 322 Reading in Secondary Content Areas	3
SPED 371 Teaching Students with Special Needs (writing-intensive course)	3

Other Required Courses

ENGR 115/116 Introduction to Engineering and Physics	4
PHIL 379 Philosophy, Religion and Science	(3) ¹
TOTAL	25

¹Hours (in parentheses) may also fulfill university requirements and are not included in total major hours

ELECTIVES

Minimum 5

TOTAL MAJOR HOURS 72

CRITERIA FOR ADMISSION TO TEACHER EDUCATION

In accordance with Texas state law, students must meet the admission criteria described on page 114.

OTHER GRADUATION REQUIREMENTS

Minimum GPA in major requirements	2.75
Minimum GPA for graduation	2.75
Minimum advanced hours	33
Minimum total hours	128

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