

# UTEP College of Science: Bachelor of Science Degree Plan

## Physics - Applied Physics Concentration UNIVERSITY CORE CURRICULUM for this MAJOR

A maximum of 66 hours may be transferred from two-year institutions to UTEP degree programs

	COURSE NAME	UTEP	EPCC
<b>A</b>	<b>General Education</b>		
	(Minimum "C" grades required)		
<b>1</b>	<b>Communication (6 credits)</b>		
	Rhetoric & Composition I	RWS 1301	ENGL 1301
	Rhetoric & Composition II	RWS 1302	ENGL 1302
	Rhetoric, Composition, & Communication	RWS 1601	no equivalent
	Expository English Composition for Speakers of ESL	ESOL 1311	no equivalent
	Expository English Composition for Speakers of ESL	ESOL 1312	no equivalent
	Written and Oral Communication	COMM 1611	no equivalent
<b>2</b>	<b>Mathematics (PreCalculus plus 7 or 8 additional credits)</b>		
	PreCalculus	MATH 1508	MATH 1314 & 2413
	Calculus I	MATH 1411	MATH 2412
	Calculus II	MATH 1312	2314
<b>3</b>	<b>Life and Physical Sciences (8 credits)</b>		
	General Chemistry I - Laboratory for Chem 1305	CHEM 1305-1105	CHEM 1311-1111
	General Chemistry II - Laboratory for Chem 1306	CHEM 1306-1106	CHEM 1312- 1112
<b>4</b>	<b>Language, Philosophy, &amp; Culture (3 credits) - choose 1 course</b>		
	English Literature (to 1700's)	ENGL 2311	ENGL 2322
	English Literature (1700's - Modern)	ENGL 2312	ENGL 2323
	Inro to American Fiction	ENGL 2313	ENGL 2324
	Introduction to American Drama	ENGL 2314	ENGL 2343
	Introduction to American Poetry	ENGL 2318	no equivalent
	World History to 1500	HIST 2301	HIST 2321
	World History since 1500	HIST 2302	HIST 2322
	Introduction to Philosophy	PHIL 1301	PHIL 1301
	Introduction to Ethics	PHIL 2306	PHIL 2306
	Making of the Other Americas	FREN 2322	no equivalent
	Introduction to Religious Studies	RS 1301	no equivalent
	Seeing & Naming: Conversations	SPAN 2340	no equivalent
	Introduction to Women's Studies	WS 2300	no equivalent
	Global Feminisms	WS 2350	no equivalent
<b>5</b>	<b>Creative Arts (3 credits) - choose 1 course</b>		
	Art Appreciation	ART 1300	ARTS 1301
	History of Art I (Pre-Renaissance Art History)	ARTH 1305	ARTS 1303
	History of Art II (Renaissance & Modern Art History)	ARTH 1306	ARTS 1304
	Dance Appreciation	DANC 1304	DANC 2303
	Introduction to Art of Motion/Film	FILM 1390	DRAM 2366
	Introduction to Music History	MUSL 1321	MUSI 1307
	Music Appreciation	MUSL 1324	MUSI 1306
	Jazz to Rock	MUSL 1327	MUSI 1310
	Introduction to Theater	THEA 1313	DRAM 1310

	COURSE NAME	UTEP	EPCC
<b>6</b>	<b>American History (6 credits) - must take both</b>		
	History of the U.S. to 1865	HIST 1301	HIST 1301
	History of the U.S. since 1865	HIST 1302	HIST 1302
<b>7</b>	<b>Government/Political Science (6 credits)**</b>		
	Introduction to Politics	POLS 2310	GOVT 2305
	American Government & Politics	POLS 2311	GOVT 2306
<b>8</b>	<b>Social and Behavioral Sciences (3 credits) - choose 1 course</b>		
	Intro to Physical Anthropology & Archaeology	ANTH 1301	ANTH 2346
	Intro to Social & Cultural Anthropology	ANTH 1302	ANTH 2351
	Cultural Geography	ANTH 1310	no equivalent
	Introduction to Linguistics	ANTH 2320	no equivalent
	Economics for Engineers and Scientists	CE 2326	no equivalent
	Interpersonal Communication	COMM 2350	no equivalent
	Mass Media and Society	COMM 2372	COMM 1307
	Principles of Macroeconomics	ECON 2303	ECON 2301
	Principles of Microeconomics	ECON 2304	ECON 2301
	Introduction to Educational Psychology	EDPC 1301	no equivalent
	Action Research in Classrooms	EDU 1342	no equivalent
	Introduction to Linguistics	ENGL 2320	no equivalent
	Cultural Geography	GEOG 1310	no equivalent
	An Introduction to Linguistics	LING 2320	no equivalent
	Language Inside and Out: Select Topics	LING 2340	no equivalent
	Introduction to Psychology	PSYC 1301	PSYC 2301
	Introduction to Sociology	SOCI 1301	SOCI 1301
	Cultural Geography	SOCI 1310	no equivalent
<b>9</b>	<b>Component Area Option (6 credits) - choose 2 courses</b>		
	Introduction to Global Business	BUSN 1301	no equivalent
	Public Speaking	COMM 1301	SPCH 1315
	Business/Professional Communication	COMM 1302	SPCH 1321
	Intro-Computational Thinking	CS 1310	no equivalent
	Computer Programming Sci/Eng	CS 1320	no equivalent
	Scientific Inquiry	SCI 1301	no equivalent
	Seminar/Critical Inquiry	UNIV 1301	EDUC 1300

### IMPORTANT

- 1 It is recommended that both Political Science courses be completed at EPCC then transferred to UTEP or both be completed at UTEP.
- 2 All courses used to satisfy the core curriculum must be completed with a grade of "C" or better. This also applies to courses transferred from
- 3 No substitutions will be allowed in the Core Curriculum.

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Physics**

**LOWER DIVISION COURSES for the MAJOR**

	COURSE NAME	UTEP	EPCC
<b>B</b>	<b>MAJOR: Physics (45/30)</b>		
	<b>Physics Courses</b>		
	Physics I (Introd. Mechanics)	PHYS 2420	PHYS 2325-2125
	Physics II (Waves & Fields)	PHYS 2421	PHYS 2326-2126
	Thermal and Fluid Physics	PHYS 2230	no equivalent
	Physics Optics SPRING	PHYS 3323	no equivalent
	Survey of Modern Physics	PHYS 2325	no equivalent
	Advanced Laboratory Practice 3 TIMES	PHYS 3243	no equivalent
	Thermal Physics SPRING	PHYS 3331	no equivalent
	Analytical Mechanics I FALL	PHYS 3351	no equivalent
	Electromagnetics I	PHYS 4341	no equivalent
	Intro Quantum Mechanics FALL	PHYS 4355	no equivalent
	<i>Nine semester hours of approved upper-division courses</i>		
	<b>Required Mathematics Courses</b>		
	Calculus III	MATH 2313	MATH 2315
	Differential Equations	MATH 2326	MATH 2320
	Matrix Algebra	MATH 3323	no equivalent
<b>C</b>	<i>At least two courses chosen from:</i>		
	<i>Applied Analysis I</i>	MATH 3335	no equivalent
	Numerical Analysis	MATH 4329	no equivalent
	Applied Analysis II	MATH 4336	no equivalent

	COURSE NAME	UTEP	EPCC
<b>D</b>	<b>Additional Reuired Course(s)</b>		
	Intro to Computer Science	CS 1301	COSC 1301
	<i>or computer Programming Sci/Engr.</i>	CS 1320	no equivalent
<b>E</b>	<b>Electives ( 11 Credits)</b>		
	<i>Additional Semester Hours 11</i>		

**IMPORTANT**

- 1 Upper division coursework = 3000 or 4000 level courses
- 2 Upper division coursework in the major or upper division electives are only available at UTEP (these are not offered at EPCC).