

## UNIVERSITY-REQUIRED TRANSFER COURSES

### Physics

Bachelor of Science at UHCL

2012-2013 2+2 Transfer Plan to University of Houston-Clear Lake

FOOTNOTES	CORE CURRICULUM REQUIREMENTS*	HRS	CODE	FOOTNOTES	ADDITIONAL FOUNDATION REQUIREMENTS	HRS
a	ENGL 1301 Composition I	3	10	c, #	MATH 2414 Calculus II	4
a, #	ENGL 1302 Composition II	3	10	c, #	Calculus III	3
b	Speech Communication**	3	11	c, #	CHEM 1411 and 1412 General Chemistry I and II	8
c, #	MATH 2413 Calculus I	4	20			
d, #	PHYS 2425 University Physics I	4	30			15
d, #	PHYS 2426 University Phycisc II	4	30			
e	Humanities**	3	40			
f	Visual & Performing Arts **	3	50			
g	HIST 1301 American History I**	3	60			
g	HIST 1302 American History II** or HIST 2301, 2302 or 2303 Texas History	3	60			
g	GOVT 2301 Government I	3	70			
g	GOVT 2302 Government II	3	70			
h	Social & Behavioral Science **	3	80			
c	Scientific Programming Language (Choose from: Visual Basic, Java,C, C++, Pascal, or Fortran)	3	90			
		45*			Total lower-level transfer credit hours	60

#### EXPLANATION OF FOOTNOTES

- \* UHCL's requirements are consistent with the 42-hour Texas core curriculum. If a student completes components of the core at one Texas institution, those courses will substitute for UHCL's same core components. If a student is core complete at any Texas Institution the student is also core complete at UHCL, however, foundation (#) courses are still required. The Core Code is used by Texas schools to identify which area of the 42-hour core curriculum a course fulfills.
- \*\* These courses may be fulfilled by approved upper-level equivalents at UHCL.
- # These courses are included in the Program Foundation Core and must be completed with a grade of "C-" or better.
- a **Admission** to UHCL requires **prior** completion of **six** hours of English Composition/Writing classes (with grade of "C-" or better) which must include ENGL 1301 Composition I plus **either** ENGL 1302 Composition II **or** ENGL 2311 Technical Writing. If ENGL 1302 is chosen as the second English class, then Technical Writing can be completed as an upper-level elective at UHCL, WRIT 3135. This is usually the best strategy.  
**Graduation** requires **nine** hours of English composition/writing classes. Students will graduate with fewest hours if they take ENGL 1301 and 1302 at community college, and wait to take WRIT 3135 Technical Writing as an elective at UHCL. Academic advisors will determine each individual's composition requirements when they create the draft degree plan the first semester of the student's enrollment.
- b Suggested courses for Speech/Communication include any SPCH course. At some transfer institutions, foreign languages may also fulfill state core Speech requirements.
- c Transfer institutions may require one or more prerequisites for these required program foundation courses, depending on the individual student's high school preparation and test scores. Students are advised to take all prerequisites required for them by their particular transfer institution. Non-remedial prerequisite courses will be transferred as lower-level electives, as needed.
- d Suggested courses for Natural Science are CHEM 1411 and 1412, General Chemistry I and II, which are program foundations.
- e Suggested courses for Humanities include any ENGL literature, HUMA, PHIL, RELI, or sophomore-level foreign language course – also any SPCH or HIST taken in addition to core requirements.
- f Suggested courses for Visual & Performing Arts include: any ARTS, DANC, DRAM, MUSI, or MUAP course. Three semester credit hours required.
- g Six hours of U.S. History required; three hours may be in Texas History. Six hours of U.S. Government are required and three of the six hours must, by state law, include Texas Constitutional Government.
- h Suggested courses for Social & Behavioral Science include: any ANTH, ECON, GEOG, PSYC, or SOCI course - also any GOVT, HIST, or POLS course taken in addition to core requirements.

The Texas State Legislature limits the number of hours undergraduates can attempt in excess of the hours required for their degree without incurring a financial penalty. A recovery fee of \$130 per semester credit hours is added to regular tuition for students who exceed the limits. Attempted hours include credits completed plus withdrawals and repeats. Undergraduates who enrolled in a Texas public college or university between Fall 1999 and Summer 2006 are allowed 45 attempted hours in excess of those required for their degree (120) and undergraduates who enrolled Fall 2006 and later are allowed 30 excess attempted hours. When these limits are exceeded, the penalty goes in to effect. Details at: <http://prtl.uhcl.edu/portal/page/portal/AR/excess-hours>



**University  
of Houston  
Clear Lake**

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Houston, TX 77058  
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# Bachelor of Science in Physics

2012-2013 Catalog

## GENERAL DEGREE REQUIREMENTS

- 120 semester hours of applicable college credit are required for the Bachelor of Science degree. A maximum of three hours of lower-level "activities" credits may apply toward graduation. If approved, up to 30 hours of lower-level correspondence, extension or CLEP credit may apply as lower level credit toward graduation in accordance with catalog rules.
- At least 30 hours of the degree plan, including at least 12 hours in the major, must be completed in residence at UHCL. At least 60 hours must be upper level.
- A minimum of 9 hours of lower-level and upper-level composition course credits are required for the bachelor's degree.
- A cumulative GPA of at least 2.000 must be maintained for course work completed at UHCL, with grades of "C" or better in at least 30 hours of UHCL classes.
- Students must remain continuously enrolled (complete at least one course in a 12 month period) or meet the requirements of a later catalog.
- Students must complete the degree within seven years or meet requirements of a later catalog.

## BASIC REQUIREMENTS

For the degree being pursued, program requirements listed on the transfer plan section of this document and indicated by the # sign should be completed with grades of "C-" or better before beginning the upper level program and finalizing a Candidate Plan of Study. All program core requirements must be completed with a grade of "C-" or better.

## BACHELOR OF SCIENCE IN PHYSICS - UHCL DEGREE REQUIREMENTS (60 HOURS)

### PHYSICS CORE (28 HOURS)

If lower level credit is given for any of the following courses, additional upper-level course work will be required to meet the minimum university requirements. Grades in Core classes must be at least "C-."

PHYS 3033/3013	Modern Physics with Laboratory	4 hrs
PHYS 4131	Mathematical Methods for Physics & Engineering I	3 hrs
PHYS 4132	Mathematical Methods for Physics & Engineering II	3 hrs
PHYS 4231	Intermediate Mechanics	3 hrs
PHYS 4331	Intermediate Electromagnetism	3 hrs
PHYS 4432	Quantum Mechanics	3 hrs
PHYS 4531	Thermodynamics & Statistical Mechanics	3 hrs
PHYS 4732	Research Seminar	3 hrs
PHYS 4839	Independent Study Research	3 hrs

### ELECTIVES – (32 HOURS)

Designated Elective	WRIT 3135 Technical Writing -or- faculty approved elective -or- other WRIT (9 hrs English composition required for graduation)	3 hrs
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Approved Elective	Physics Elective	3 hrs
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Approved Elective	Physics Elective	3 hrs
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Additional Approved Electives for 32 total elective hours –or- optional subplan (see below)

Optional Sub-Plan(19 hrs)

### ENGINEERING PHYSICS

CENG 3624	Introduction to Engineering	2 hrs
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CENG 3132/3112	Digital Circuits with Lab	4 hrs
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CENG 3133/3113	Linear Circuits with Lab	4 hrs
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PHYS 4232	Mechanics of Materials	3 hrs
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PHYS 4532	Fluids and Heat Transfer	3 hrs
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SENG 4130	Introduction to Systems Engineering	3 hrs
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Note: The upper level course lists are subject to change, but the number of hours (60 upper level and 120 total) remains the same.

School of Science and Computer Engineering Advising Office

281-283-3711, Bayou Bldg., Room 3611

[sceadvising@uhcl.edu](mailto:sceadvising@uhcl.edu) [www.uhcl.edu/sce/advising](http://www.uhcl.edu/sce/advising)

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