

UNIVERSITY-REQUIRED TRANSFER COURSES

Mathematical Science

Bachelor of Arts or Bachelor of Science at UHCL

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

FOOTNOTE	CORE CURRICULUM REQUIREMENTS*	HRS	CODE	FOOTNOTE	ADDITIONAL FOUNDATION REQUIREMENTS	HRS
a	ENGL 1301 Composition I	3	10	c, #	MATH 2414 Calculus II	4
a, #	ENGL 1302 Composition II or #ENGL 2311 Technical Writing	3	10	c, j, #	MATH 2415 Calculus III**	4
b	Speech Communication**	3	11	c	Electives	9
c, #	MATH 2413 Calculus I	4	20			17
d, #	Natural Science	3	30			
d, #	Natural Science	3	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 US and TX Constitutions	3	70			
g	GOVT 2302 US and TX Institutions	3	70			
h	Social & Behavioral Science **	3	80			
c,#	Scientific Programming Language (PASCAL** or Visual Basic**)	3	90		Total transfer credit for B.A and B.S.	60
		43*				

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 include any ASTR, BIOL, CHEM, ESCI, GEOL or PHYS course.
- 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.
- j MATH 2415 may be replaced by UHCL MATH 3231, offered every Fall. Calculus III is required for both the B.A. and the B.S. degrees.

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://prt.uhcl.edu/portal/page/portal/AR/excess-hours>



University of Houston Clear Lake

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# Bachelor of Arts/Bachelor of Science Mathematical Science

2012-2013 Catalog

## GENERAL DEGREE REQUIREMENTS

- 120 semester hours of applicable college credit are required for the Bachelor of Arts or the Bachelor of Science degrees. 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. WRIT 3135, Technical Writing, is required if ENGL 2311 has not been completed prior to transfer.

## BACHELOR OF ARTS IN MATHEMATICAL SCIENCE DEGREE - UHCL DEGREE REQUIREMENTS (60 HRS)

If lower level credit is given for any of the following courses, additional upper-level course work selected from the list of electives will be required.

In addition to Calculus I, II & III (listed on page one) students must complete the following courses:

MATH 3131	Introduction to Linear Algebra	3 hrs	WRIT 3135 Tech Writing (if 2311 not taken)	3 hrs
MATH 4030	Introduction To Modern Algebra & Number Theory	3 hrs	or other WRIT or General Elective	
MATH 4131	Ordinary Differential Equations and Applications	3 hrs	(9 hours English composition required for graduation)	
MATH 4434	Introduction to Probability	3 hrs	*GENERAL ELECTIVES Upper-level (UHCL Electives)	33 hrs
<b>MATH Electives</b> Select 4 Math classes chosen from the BA list below			*Restriction: Excludes MATH 3038 and 3334 which may <b>not</b> be taken for credit by MATH majors. Non-math classes can serve as general electives. Check for prerequisites.	

**Math Electives** require prior approval of the student's **faculty** advisor. For the B.A. degree, select four Math Electives from the following list.

Note that the lists of accepted electives differ between the BA and BS degrees.

MATH 4031	History of Mathematical Sciences	3 hrs	MATH 4232	Intro to Abstract Algebra	3 hrs
MATH 4135	Numerical Analysis & Its Applications	3 hrs	MATH 4235	Theory of Models & Applications	3 hrs
MATH 4136	Math Software Applications	3 hrs	MATH 4435	Introduction to Statistics	3 hrs
MATH 4231	Predicate Logic	3 hrs	MATH 4132	Number Theory	3 hrs

## BACHELOR OF SCIENCE IN MATHEMATICAL SCIENCE DEGREE - UHCL DEGREE REQUIREMENTS (60 HRS)

If lower level credit is given for any of the following courses, additional upper-level course work selected from the list of electives will be required.

In addition to Calculus I, II & III (listed on page one) students must complete the following courses:

MATH 3131	Introduction to Linear Algebra	3 hrs	WRIT 3135 Tech Writing (if 2311 not taken)	3 hrs
MATH 4131	Ordinary Differential Equations & Appl.	3 hrs	or other WRIT or General Elective (9 hours English)	
MATH 4136	Math Software Applications	3 hrs	*GENERAL ELECTIVES – Upper-level (UHCL) electives	
MATH 4331	Advanced Calculus	3 hrs	*Restriction: Excludes MATH 3038 and 3334 which may	
MATH 4434	Introduction to Probability	3 hrs	<b>not</b> be taken for credit by MATH majors. Non-math classes	30 hrs
MATH 4232 or 4435	Intro to Abstract Algebra –or- Intro to Statistics	3 hrs	can serve as general electives. Check for prerequisites.	
MATH Electives	Select 3 Math classes chosen from the BS list below	9 hrs		

**Math Electives** require prior approval of the student's **faculty** advisor. For the B.S. degree, select the three Math Electives from the following list.

Note that the lists of accepted electives differ between the BA and BS degrees.

MATH 4132	Number Theory	3 hrs	MATH 4235	Theory of Models & Applications	3 hrs
MATH 4133	Introduction to Topology	3 hrs	MATH 4431	Introduction to Analysis	3 hrs
MATH 4135	Numerical Analysis & Applications	3 hrs	MATH 4435	Introduction to Statistics	3 hrs
MATH 4231	Predicate Logic	3 hrs	MATH 4633	Functions of a Complex Variable	3 hrs
MATH 4232	Introduction to Abstract Algebra	3 hrs			

Note: The upper level course lists are subject to change, but the number of hours (60 upper level and 120 total) will not change.

School of Science and Computer Engineering Advising Office

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