# 3 + 2\* DUAL DEGREE YOUNG ENGINEERING STUDENTS (YES) PROGRAM JOINT AGREEMENT BETWEEN THE UNIVERSITY OF MARY HARDIN-BAYLOR AND BAYLOR UNIVERSITY

#### PURPOSE OF PROGRAM

The 3+2\* Dual Degree Young Engineering Students (YES) program offers students who have completed an outstanding freshmen year and have an interest in engineering an opportunity to receive acceptance into Baylor University's School of Engineering and Computer Science. The student who progresses through the program as prescribed would receive a Bachelor of Science Degree with a major in Engineering Science from The University of Mary Hardin-Baylor and a Bachelor of Science in Electrical and Computer Engineering, Bachelor of Science in Mechanical Engineering, or Bachelor of Science in Engineering degree from Baylor University within five years.

#### DESCRIPTION AND POLICY OF THE PROGRAM

- 1) The student must be admitted to The University of Mary Hardin-Baylor.
- 2) When the student has completed at least 30 semester hours of academic work, he or she may apply to be accepted into the YES program as described below.
  - a) The student must be accepted for admission to YES by the Engineering Admissions Advisor at the University of Mary Hardin-Baylor.
  - b) The student must have maintained at least a 2.75 GPA for all academic work.
- 3) The student must complete an accelerated curriculum designed by The University of Mary Hardin-Baylor that consists of 117 semester hours of specified coursework described in the current University of Mary Hardin-Baylor Undergraduate Catalog http://undergrad.umhb.edu/catalog. Engineering Science Degree plan course requirements are listed below in the *Undergraduate Curriculum at the University of Mary Hardin-Baylor* sections.
- 4) The student must have an acceptable pre-entry interview by faculty of Baylor University's School of Engineering and Computer Science. This interview is to determine the student's motivation for the engineering profession, and qualities of character deemed necessary to become an engineer.
- 5) The student must attend a YES Orientation workshop at Baylor University during the summer between the second and third undergraduate years. Summer research opportunities at Baylor will be made available to interested students whenever possible.
- 6) The student will be expected to attend all YES meetings in cooperation with the Baylor University Engineering program designed to acquaint him or her with the experience provided through the engineering program at Baylor University.
- 7) A student's admission into the Baylor University School of Engineering and Computer Science will be contingent on the following.
  - a) A grade of "C" or above in all required pre-engineering courses and at least 117 semester hours of specified courses.
  - b) A cumulative GPA of 2.75 or above for all courses, or the GPA that Baylor requires of all transfer students at the time of the engineering student's application to Baylor, whichever is higher.

- c) A GPA of 3.0 or above for all engineering, mathematics, and science courses required in the University of Mary Hardin-Baylor YES curriculum. A Quality Point Average (QPA, which is the grade point average calculated when all attempts of requisite classes are averaged) of 2.5 or above on all engineering, mathematics, and science courses required for Upper Division Admission in the Baylor engineering degree plans.
- d) A positive recommendation from the Engineering Admissions Advisor at the University of Mary Hardin-Baylor as well as a positive record of ethical behavior while a pre-engineering student.
- 8) The student must complete 117 hours of undergraduate course work at UMHB as specified below. Upon the successful completion of at least 12 subsequent hours of upper-level engineering credits at the Baylor University School of Engineering and Computer Science, 12 hours of upper-level engineering credits will be transferred to The University of Mary Hardin-Baylor.
- 9) Following successful completion of 129 hours of undergraduate course work at UMHB and Baylor University (including 12 hours of upper-level engineering credits taken at Baylor University), the student will be granted a Bachelor of Science degree with a major in Engineering Science from the University of Mary Hardin-Baylor.
- 10) Following successful completion of the remaining required courses within the selected engineering degree plan of the Baylor University School of Engineering and Computer Science (as documented in the current Baylor University Undergraduate Catalog <a href="http://www.baylor.edu/admissions/index.php?id=55148">http://www.baylor.edu/admissions/index.php?id=55148</a>), the student will be granted a Bachelor of Science in Electrical and Computer Engineering, Bachelor of Science in Mechanical Engineering, or Bachelor of Science in Engineering degree by Baylor University dependent upon the student's selected degree plan.

#### REVISION OR TERMINATION OF JOINT AGREEMENT

Either party may request revisions of this agreement at any time. If both parties agree upon a revision or revisions, the revised agreement shall be instituted in a way that allows students already in the program to complete the program in its entirety.

Termination of this joint agreement may be initiated by either party. Written notice of intent to terminate must be delivered to the other party at least six months prior to the effective date of termination. Students enrolled in the program at the time of termination of this joint agreement will be given the opportunity to complete the program in its entirety.

<sup>\*</sup>For students who wish to participate in athletics, a 4+2 YES program (four years at UMHB plus two years at Baylor) may also be pursued with the same requirements and benefits of the 3+2 YES program.

### (3 + 2 Plan)

- 1. The student must complete 117 hours of undergraduate course work at UMHB as specified below. Upon the successful completion of 12 hours of upper-level engineering credits at Baylor University, those credit hours will be transferred to the University of Mary Hardin-Baylor and will be counted toward a UMHB Bachelor of Science degree in Engineering Science.
- 2. Courses to be taken at The University of Mary Hardin-Baylor:

#### UMHB B.S. DEGREE WITH AN ENGINEERING SCIENCE MAJOR

	Freshman Year	
Fall (17)		Spring (16)
ENGR 1310 - 3 MATH 1330 - 3 CHEM 1410 - 4 ENGL 1321 - 3 CSBS 1311 - 3 UMHB 1101 - 1 UMHB 1002		ENGR1320 -3 MATH 2330-3 CISC 2330 - 3 ENGL 1322-3 CSBS 1312 - 3 EXSS 1101 - 1 UMHB 1002
Summer Sessions (9) POLS 2310 – 3 SOCI 1311 – 3 HIST 1311 – 3	Sophomore Year	
Fall (17)	Sophomore Tear	Spring (16)
ENGR 2320 - 3 MATH 2320 - 3 PHYS 2421 - 4 ENGL 2321 - 3 CISC 3321 - 3 UMHB 1002 EXSS Activity - 1		ENGR 2321 – 3 MATH 3330 – 3 PHYS 2422 – 4 ENGL 2322 – 3 COMM 1320 – 3 UMHB 1002
Summer Sessions (9)		
ENGR 4370 - 3 MATH 3303 - 3 HIST 1312 - 3	Junior Year	
Fall (16)		Spring (17)
ENGR 2345 - 3 ENGR 2311 - 3 CISC 3360 - 3 BECO 3320 - 3 FOREIGN LANGUAGE - 4**		ENGR2430 -4 MATH 3325 - 3 CISC 3361 - 3* MATH ELECTIVE - 3 FOREIGN LANGUAGE - 4**
TOTAL UMHB HOURS: 117 BU HOURS: 12 ( TOTAL HOURS: 129	upper division engineeri	ng hours to be transferred to UMHB)

<sup>\*</sup>Electrical Engineering students will be required to take this course while for other majors this will be an elective course.

<sup>\*\*</sup>Foreign Language proficiency may be completed by taking a CLEP test or by taking the MFOL 1410 and MFOL 1420 courses.

# UNDERGRADUATE CURRICULUM AT THE UNIVERSITY OF MARY HARDIN-BAYLOR (4 + 2 Plan)

- 1. The student must complete 117 hours of undergraduate course work at UMHB as specified below. Upon the successful completion of 12 hours of upper-level engineering credits at Baylor University, those credits will be transferred to the University of Mary Hardin-Baylor and will be counted toward a UMHB Bachelor of Science degree in Engineering Science.
- 2. Courses to be taken at The University of Mary Hardin-Baylor:

#### UMHB B.S. DEGREE WITH AN ENGINEERING SCIENCE MAJOR

Fall (16)  ENGR 1310 - 3  MATH 1330 or 2310 - 3  ENGL 1321 - 3  POLS 2310 - 3  CSBS 1311 - 3  UMHB 1101 - 1  UMHB 1002  Sophomore Year  Fall (14)  ENGR 2320 - 3  MATH 2320 - 3  CHEM 1410 - 4  ENGL 2321 - 3  ENGR 2322 - 3
MATH 1330 or 2310 - 3 ENGL 1321 - 3 ENGL 1321 - 3 POLS 2310 - 3 CSBS 1311 - 3 UMHB 1101 - 1 UMHB 1002  Sophomore Year Fall (14)  ENGR 2320 - 3 MATH 2320 - 3 CHEM 1410 - 4 ENGL 2321 - 3 ENGL 2322 - 3
ENGL 1321 – 3 POLS 2310 – 3 CSBS 1311 – 3 UMHB 1101 – 1 UMHB 1002  Sophomore Year Fall (14)  ENGR 2320 – 3 MATH 2320 – 3 CHEM 1410 – 4 ENGL 2321 – 3 ENGL 2322 – 3 ENGL 2322 – 3 ENGL 2322 – 3 ENGL 2321 – 3 ENGL 2322 – 3
POLS 2310 – 3  CSBS 1311 – 3  UMHB 1101 – 1  UMHB 1002  Sophomore Year  Fall (14)  ENGR 2320 – 3  MATH 2320 – 3  CHEM 1410 – 4  ENGL 2321 – 3  ENGL 2321 – 3  ENGL 2322 – 3
CSBS 1311 - 3 UMHB 1101 - 1 UMHB 1002  Sophomore Year Fall (14)  ENGR 2320 - 3 MATH 2320 - 3 CHEM 1410 - 4 ENGL 2321 - 3 ENGL 2321 - 3 ENGL 2322 - 3 ENGL 2322 - 3
UMHB 1101 – 1 UMHB 1002  Sophomore Year Fall (14)  EXSS 1101 – 1 UMHB 1002  Sophomore Year Fall (14)  ENGR 2320 – 3  MATH 2320 – 3  CHEM 1410 – 4  ENGL 2321 – 3  ENGL 2322 – 3  ENGL 2322 – 3
UMHB 1002  Sophomore Year Fall (14)  ENGR 2320 – 3  MATH 2320 – 3  CHEM 1410 – 4  ENGL 2321 – 3  ENGL 2321 – 3  ENGL 2322 – 3
Fall (14)  ENGR 2320 - 3  MATH 2320 - 3  CHEM 1410 - 4  ENGL 2321 - 3  ENGL 2321 - 3  ENGL 2322 - 3
Fall (14)  ENGR 2320 - 3  MATH 2320 - 3  CHEM 1410 - 4  ENGL 2321 - 3  ENGL 2321 - 3  ENGL 2322 - 3
MATH 2320 – 3 CHEM 1410 – 4 CISC 2330 – 3 ENGL 2321 – 3 ENGL 2322 – 3
CHEM 1410 – 4 CISC 2330 – 3 ENGL 2321 – 3 ENGL 2322 – 3
ENGL 2321 – 3 ENGL 2322 – 3
UMHB 1002 UMHB 1002
UMHB 1002 UMHB 1002 EXSS Activity – 1 HIST 1311 – 3
Ends reality 1
Junior Year
Fall (13) Spring (16)
PHYS 2421 – 4 PHYS 2422 – 4
ENGR 2311 – 3 MATH 3325 – 3
CISC 3321 – 3 COMM 1320 – 3 BECO 3320 – 3 MATH Elective – 3
ENGR 4370 – 3
Senior Year
Fall (13) Spring (14)
ENGR 2345 – 3 ENGR 2430 – 4
CISC $3360 - 3$ HIST $1312 - 3$
MATH 3303 – 3 CISC 3361 – 3
FOREIGN LANGUAGE – 4**  FOREIGN LANGUAGE – 4**
TOTAL UMHB HOURS: 117

BU HOURS: 12 (upper division engineering hours to be transferred to UMHB) TOTAL HOURS: 129

<sup>\*</sup>Electrical Engineering students will be required to take this course while for other majors this will be an elective course.

\*\*Foreign Language proficiency may be completed by taking a CLEP test or by taking MFOL 1410 and MFOL 1420.

#### **MEMORANDUM OF AGREEMENT**

## 3 + 2 DUAL DEGREE YOUNG ENGINEERING STUDENTS (YES) PROGRAM JOINT AGREEMENT BETWEEN THE UNIVERSITY OF MARY HARDIN-BAYLOR AND BAYLOR UNIVERSITY

University of Mary Hardin-Baylor and Baylor University do hereby enter into the articulated agreement attached to this signature effective on the 1<sup>st</sup> day of August, 2010.

Date: 14 16, 2010

Date: /2/10/10

Randy O'Rear

President

University of Mary Hardin-Baylor

Belton, Texas

Kenneth W. Starr

President

**Baylor University** 

Waco, Texas

APPENDIX A Equivalent Courses agreed upon by Baylor University and UMHB. These courses will be reviewed annually to ensure and maintain course equivalency.

	T/SUBSTITUTE COURSES AT UMHB AND BAYLO	R UNIVERSITY	имнв	BU	
LIMITE OFFERING					
UMHB OFFERING	COURSE TITLE	BAYLOR OFFERING	hrs	hrs	
ENGR 1310	Intro. To Engineering	EGR 1301	3	3	
ENGR 1320	Intro. To Engineering Fundamentals	EGR 1302	3	3	
ENGR 2311	Numerical Algorithms for CSE	CSI 1336	3	3	
ENGR 2320	Engineering Mechanics: Statics	ME 2320	3	3	
ENGR 2321	Engineering Mechanics: Dynamics	ME 2321	3	3	
ENGR 2345	Thermodynamics	ME 2345	3	3	
ENGR 2430	Electric Circuits Theory	ELC 2430	4	4	
ENGR 4370	Computer Science and Engineering Seminar	EGR 3305	3	3	
CISC 3321	Object Oriented Programming	C\$I 1440	3	4	
CISC 3360	Computer Organization & Architecture(*)	ELC 2337	3	3	
MATH 1330	Calculus I	MTH 1321	3	3	
MATH 2330	Calculus II	MTH 1322	3	3	
MATH 2320	Linear Algebra	MTH 2311	3	3	
MATH 3303	Statistics	STA 3381	3	3	
MATH 3325	Ordinary Differential Equations	MTH 3325	3	3	
MATH 3330	Calculus III	MTH 2321	3	3	
PHYS 2421	Physics with Calculus I	PHY 1420	4	4	
PHY\$ 2422	Physics with Calculus II	PHY 1430	4	4	
CHEM 1410	General Chemistry I	CHE 1301	4	3	
ENGL 1321	Rhetoric & Composition I	ENG 1302	3	3	
ENGL 2321	British Literature to 1785	GTX or LIT	3	3	
ENGL 2322	British Literature from 1785	GTX or LIT	3	3	
CSBS 1311	Old Testament Survey	REL 1310	3	3	
CSBS 1312	New Testament Survey	REL 1350	3	3	
WRIT 3344	Scientific Writing	ENG 3300	3	3	
POLS 2310	State and Federal Government I	PSC 2302	3	3	
BECO 3320	Intermediate Macroeconomics Theory	ECO 3308	3	3	
EXSS X1XX	Exercise & Sport Science Activities	HP 11XX	2	2	
FOREIGN LANG.	Foreign Language	MFL/CLASSICS	8	8	
UMHB 1002(4)	CHAPEL	CHA 1088(2)	0	0	
		Equivalent hours	95	95	
UMHB REQUIREMENTS WHICH ARE NOT REQUIRED BY BAYLOR					
CISC 2330	Structured Programming Fundamentals		3		
CISC 3361	Systems Programming: Robotics		3		
MATH	Mathematics Elective	-	3		
ENGL 1322	Rhetoric & Composition II	-	3		
COMM 1320	Public Speaking		3		
SOCI 1311	Introduction to Sociology		3		
SOCI SCI	Social Science Elective		3		
HUMA	Humanities Elective		3		
UMHB 1101	Freshman Seminar	-	1		
	<del></del>				

<sup>(\*)</sup> CISC 3360 is being redesigned to match the course description and learning objectives of Baylor's ELC 2337, "Digital Logic Design"