

MEMORANDUM of AGREEMENT  
between  
TEXAS A&M UNIVERSITY-COMMERCE  
and  
NORTHEAST TEXAS COMMUNITY COLLEGE  
regarding  
THE INDUSTRIAL ENGINEERING DEGREE

I. This MEMORANDUM of AGREEMENT (Agreement) is made and entered into on this 2<sup>nd</sup> day of October, 2008, by and between Texas A&M University-Commerce and **Northeast Texas Community College** concerning the delivery of the Bachelor of Science Degree in *Industrial Engineering*.

II. STATEMENT OF SERVICES TO BE PERFORMED:

Texas A&M University-Commerce (A&M-Commerce):

A&M-Commerce agrees to permit NTCC's COSC 1320 course to transfer for CSci 151 at A&M-Commerce.

A&M-Commerce will work with NTCC in providing reverse transfer arrangements for any students transferring from NTCC to A&M-Commerce prior to earning an associate degree.

**Northeast Texas Community College (NTCC)**

NTCC agrees to place the 2 + 2 degree plan for the first two years of *Industrial Engineering* in its catalog alphabetically as "Engineering, Industrial" along with the statement:

"**Northeast Texas Community College** and Texas A&M University Commerce have entered into a *Transfer Course Agreement* that will provide a seamless transition for students who complete the Associate of Science Degree in *Industrial Engineering* (IE) to a Bachelor of Science Degree in *Industrial Engineering* (IE) at A&M-Commerce. An NTCC student must complete the approved A.S. in *Industrial Engineering* degree plan with a 2.0 GPA and no grade below C in science and mathematic courses in order to be guaranteed admission as a junior in the *Industrial Engineering* program at A&M-Commerce.

*Industrial Engineering* baccalaureate graduates are prepared to enter careers such as those in technical management, supervision, engineering, manufacturing and construction."

III. BOTH PARTIES AGREE TO:

Provide courses toward the 128 semester hour Bachelor of Science in Industrial Engineering (BS in IE) degree program. A detailed outline of the curriculum is provided in Appendix A; it identifies the courses to be offered by each institution. A copy of the *Course Transfer Agreement* is attached (Appendix B).

Identify and energetically seek to resolve any issues related to the implementation of this Agreement including, but not limited to, those related to financing, course scheduling, use of technology, Internet access, or availability of other resources.

**IV. TERMS AND TERMINATION:**

This Agreement will remain in effect from its execution date until one or both of the signing parties deem it necessary to terminate the Agreement with or without cause. However, this Agreement will remain in effect for a period of one (1) calendar year after written notice of termination is made, thereby granting both parties to this Agreement an exit period in order to accommodate active students in the program.

**V. MISCELLANEOUS**

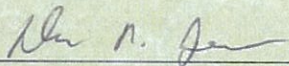
- A. Assignability: Neither Party may assign its rights or duties under this Agreement without the prior written consent of the other Party.
- B. Notice: Any notice, demand, or communication required, permitted, or desired to be given under this Agreement, shall be deemed effectively given when delivered personally, sent by telecopy, or mailed by prepaid Certified Mail, return requested, addressed to the Parties at the following addresses:
- Dr. Dan R. Jones, President & CEO  
Texas A&M University-Commerce  
P. O. Box 3011  
Commerce, TX 75429-3011
- Dr. Brad B. Johnson, President  
**Northeast Texas Community College**  
2886 FM 1735 Chapel Hill Road  
Mount Pleasant, TX 75455
- C. Enforceability: Should any provision of this Agreement be held invalid or unconstitutional by any governmental body or court of competent jurisdiction, that holding shall not diminish the validity of any other provision of the Agreement.
- D. Governance and Interpretation: This Agreement shall be governed by and interpreted in accordance with the laws of The State of Texas.
- E. Construction: Common nouns and pronouns and all other terms shall be deemed to refer to the masculine, feminine, neuter, and singular and/or plural, as the identity of the person or persons, firm, or association may in the context require.
- F. Multiple Copies: This Agreement and its Amendments, if any, shall be in writing and may be executed in multiple copies. Each multiple copy, if any, shall be deemed an original, but all multiple copies together shall constitute one and the same instrument.
- G. Waiver of Breach: The waiver by either Party of a breach or violation of any provision of the Agreement shall not operate as, or be constructed to be, a waiver of any subsequent breach of the same or another provision.

- H. This Agreement constitutes the Entire Agreement between the Parties hereto with respect to the subject matter hereof and supersedes all previous or contemporaneous agreements, understandings, or negotiations between the written instrument executed by both Parties.
- I. Dispute Resolution: The laws of The State of Texas (U.S.A.) shall govern the interpretation and application of this Agreement. The dispute resolution procedures outlined in Chapter 2260 of the Texas Government Code shall apply. Any litigation arising out of this Agreement or its operation, performance or non-performance shall be resolved solely and exclusively by the courts located in Hunt or Titus County, Texas, U.S.A. The designated individual responsible on behalf of Owner for examining any claim or counterclaim and conducting any negotiations related thereto as required under §2260.052 of H.B. 826 of the 76th Texas Legislature shall be:

Mr. Bert A. White, Director  
Purchasing and Contract Administration  
Texas A&M University-Commerce  
P.O. Box 3011  
Commerce, TX 75429-3011

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals effective as of the date and year first above written.

**TEXAS A&M UNIVERSITY-COMMERCE**

By: 

Dr. Dan R. Jones  
President & CEO

10-2-08

Date

**NORTHEAST TEXAS COMMUNITY COLLEGE**

By: 

Dr. Brad B. Johnson  
President

10-2-08

Date

## Appendix A

Degree Plan for B.S. in IE Degree to be offered at NTCC and A&M-Commerce

<b>Texas Common Course Number – NTCC Core Courses</b>
<b>Communications (9 hours)</b>
ENGL 1301 English Composition I
ENGL 1302 English Composition II
SPCH 1311 Fundamentals of Speech or SPCH 1315 Public Speaking or SPCH 1321 Business & Prof Speaking
<b>Mathematics (4 hours)</b>
MATH 2413 Calculus I (prerequisite: Math 2412 with a C or better or placement by Accuplacer test)
<b>Natural Sciences (8 hours)</b>
CHEM 1411 General Chemistry I (prerequisite: high school chemistry or CHEM 1405 or 1406)
PHYS 2425 Advanced Physics I (prerequisite: 1) high school physics or PHYS 1402 or instructor approval with completion of MATH 2413 and 2) MATH 2413 or concurrent enrollment.
<b>Humanities (3 hours)</b> <b>1 course chosen from the following:</b>
ENGL 2327 American Literature: The Beginnings
ENGL 2328 Contemporary American Literature
ENGL 2332 or 2333, World Literature I or II
ENGL 2322 or 2323 British Literature I or II
HIST 2321 World Civilization I
HIST 2322 World Civilization II
PHIL 2306 Ethics and Values
PHIL 1301 Introduction to Philosophy
HUMA 1301 Appreciation of the Humanities: Pre-Classical through Renaissance
HUMA 1302 Appreciation of the Humanities in the Modern Times
<b>Visual and Performing Arts (3 hours) 1 course chosen from the following:</b>
ARTS 1303 Survey of Western Art to 1400
ARTS 1301 Introduction to Art Appreciation
ARTS 1304 Survey of Western Art after 1400
MUSI 1306 Music Appreciation
DRAM 2361 Theatre History I
DRAM 2362 Theatre History II
<b>Social Sciences (3 hours) 1 course chosen from the following:</b>
ECON 2301 Macroeconomics
ECON 2301 Microeconomics
<b>History and Political Science (12 hours)</b>
HIST 1301 History of the US to 1877
HIST 1302 History of the US since 1877
GOVT 2305 American National Government
GOVT 2306 State and Local Government
<b>Physical Health &amp; Education (2 hours)</b>
Two 1 hour PHED activity courses or PHED 1238 Fitness for Life
<b>CORE TOTAL - 44 semester hrs</b>
General Electives
<b>TOTAL – 18 semester hrs (Approved Electives are listed on next page)</b>

Degree Plan for IE Degree to be offered at Northeast Texas Community College (NTCC)  
Continued (p.2)

Students need at least 18 semester hours of electives to have at least 128 semester hours for the four-year degree. Approved or recommended electives towards joint Associate of Science in Industrial Engineering (NTCC) and a Bachelor of Science in Industrial Engineering (A&M-Commerce) include, but are not limited to:

Direct Transfer: (11 hours)

PHYS 2426 Advanced Physics II (prerequisite: PHYS 2425)  
COSM 1320 C++ Programming I (prerequisite: CS 1309 or instructor approval)  
MATH 2414 Calculus II (prerequisite: MATH 2413 with a grade of C or better)

Remaining 7 hours:

A student who has completed any hours that are not on the IE degree plan may be allowed to count those hours toward the seven hours of elective hours at NTCC. The hours used to complete the 7 hours of electives will not count toward any hours at A&M-Commerce nor in the IE degree plan except for the completion of the Associate's degree.

NTCC students who do not have any additional hours may upon completing the above coursework transfer courses back from A&M-Commerce. If a student is short 1-3 credit hours, then upon earning a "C" or better in IE 101 from A&M-Commerce, the course will be transferred back to NTCC to complete the Associate's degree in IE. If a student is short 4-6 credit hours, then upon earning a "C" or better in IE 101 and IE 201 from A&M-Commerce, the two courses will be transferred back to NTCC to complete the Associate's degree in IE. If a student is short 7 credit hours, then upon earning a "C" or better in IE 101, IE 201, and IE 207 from A&M-Commerce, the three courses will be transferred back to NTCC to complete the Associate's degree in IE.

In addition, the following statements apply to the joint degree:

- Courses identified as "Core Curriculum" at NTCC will substitute for courses in the A&M-Commerce core curriculum.
- A student who is "core complete" at NTCC will be considered as "core complete" at A&M-Commerce.
- Students must meet the admissions requirements for both Texas A&M University-Commerce and also for the B.S. in IE program in order to be approved to enroll in upper division Industrial Engineering classes. This criterion, as listed in the Admissions Policies and undergraduate catalog, also includes for the B.S. in IE program that Industrial Engineering majors are required to complete the University Studies requirements and major area requirements. For a course to transfer into a B.S. in IE major, a grade of "C" or better must be earned in the course. A grade of "C" or better is required in all B.S. in IE required courses in the major. Courses must be repeated if a grade of "C" or better is not earned in the course."

<b>Industrial Engineering Courses offered at Texas A&amp;M University-Commerce</b>	
<b>Industrial Technology (9 hours)</b>	
IT 111	Computer Aided Design
IT 112	Product Design and Development
IT 340	Quality Management and Improvement (or MGT 340)
<b>Industrial Engineering (58 hours)</b>	
IE 101	Introduction to Industrial Engineering
IE 201	Elementary Engineering Analysis
IE 207	Engineering Economic Analysis
IE 211	Engineering Probability and Statistics
IE 305	Facilities Planning
IE 311	Advanced Engineering Statistics
IE 312	Operations Research I
IE 313	Operations Research II
IE 314	Statistical Quality Control
IE 316	Manufacturing Systems Design and Control
IE 410	Systems Simulation
IE 403	Human Factors Engineering
IE 407	Production Systems Operation
IE 411	Engineering Management
IE 431	Principles of Programmable Automation
IE 444	Systems Engineering
IE 471	Industrial Internship
IE 486	Service Systems Analysis
IE 495	Industrial Systems Design
<b>Mathematics (6 hours)</b>	
MATH 315	Differential Equations
MATH 335	Linear Algebra
<b>Total</b>	<b>73 semester hrs</b>

## Appendix B

***COURSE TRANSFER AGREEMENT***  
between  
**TEXAS A&M UNIVERSITY-COMMERCE**  
and  
**NORTHEAST TEXAS COMMUNITY COLLEGE**

This Course Transfer Agreement is made between  
Texas A&M University-Commerce, an entity of The State of Texas, hereinafter referred to as  
“A&M-Commerce”  
and **Northeast Texas Community College**, a local government entity, hereinafter referred to as  
“NTCC.”

**1. Purpose of Agreement:**

The purpose of this Agreement is to enable NTCC students who successfully complete the articulated courses as outlined in this agreement (see Appendix A) to transfer to A&M-Commerce in a seamless transition without loss of semester credit hours towards the completion of the Bachelor of Science in Industrial Engineering (CIP: 14.3501.00) degree.

**2. Terms of Agreement:**

**A. Responsibilities of A&M-Commerce:**

A&M-Commerce hereby agrees as follows:

1. To admit and accept in full the course work as outlined in Appendix A those NTCC students who are enrolled in the Associate of Science in Industrial Engineering degree and have been determined by A&M-Commerce to qualify for admission to A&M-Commerce and the Bachelor of Science in Industrial Engineering program.
2. To develop and provide materials related to a seamless transition to the Bachelor of Science in Industrial Engineering program, leading to a Bachelor of Science in

Industrial Engineering (B.S. in IE) degree, in cooperation between NTCC and A&M-Commerce.

3. Post on A&M-Commerce website the articulated NTCC/A&M-Commerce community college 2-year planning guide.
4. To provide and teach A&M-Commerce courses articulated in this agreement.
5. To provide NTCC advisors with information and support in helping them with their role of assisting NTCC students with transfer and degree program advising.
6. To maintain on-going collaboration and monitoring of the program through the Department Head of the A&M-Commerce *Department of Industrial Engineering & Technology*.
7. To arrange and coordinate academic accommodations for qualified disabled students enrolled in A&M-Commerce courses through the A&M-Commerce *Office of Disability Services*.
8. To bill and collect from students participating in this program applicable A&M-Commerce tuition and fees as set by A&M-Commerce and approved by the *Texas A&M University System-Board of Regents*.
9. To advise students that A&M-Commerce's academic requirements, policies, procedures, tuition and fees are subject to change; and that change information can be found on the A&M-Commerce website, bulletins, or other locations.
10. A&M-Commerce will work with NTCC in providing reverse transfer arrangements for any students transferring from NTCC to A&M-Commerce prior to earning an associate degree.
11. Provide NTCC students with scholarship and financial aid information through advising and advising materials.



12. A&M-Commerce cannot guarantee this program in perpetuity, therefore it is important that the parties and students participating in this program understand that this agreement will not constitute a binding contract regarding the on-going or future offerings of the academic program outlined herein.
13. A&M-Commerce is an equal opportunity institution, and shall not discriminate unlawfully against any NTCC student, applicant, or employee, nor shall it deny the benefits provided its own degree-seeking students to any person on the basis of race, color, national origin, ancestry, disability, marital status, age or gender.

**B. Responsibilities of NTCC:**

NTCC hereby agrees as follows:

1. To admit and enroll NTCC students in lower division courses taught by NTCC as part of this articulated degree program.
2. To provide NTCC students with A&M-Commerce course listings for this program through bulletin and web postings, advising materials, and other appropriate media.
3. To assist in advising NTCC/A&M-Commerce students in this program through one or more designated NTCC academic advisor(s).
4. To communicate to NTCC students completing the Associate of Science in Industrial Engineering and enrolling at A&M-Commerce of A&M-Commerce academic requirements, policies, procedures, tuition and fees and that these are subject to change that A&M-Commerce cannot guarantee the program in perpetuity, and that future offerings cannot be guaranteed beyond the terms of this course transfer agreement.
5. To coordinate class schedules and school closings with A&M-Commerce. All schedules of classes and holidays will be those of A&M-Commerce.

6. NTCC is an equal opportunity institution, and shall not discriminate unlawfully against any A&M-Commerce student, applicant, or employee, nor shall it deny the benefits provided its own degree-seeking students to any person on the basis of race, color, national origin, ancestry, disability, marital status, age or gender.

**C. Responsibilities of Both Institutions:**

A program review will occur annually to assess the current performance of the program and consider future modifications.

**D. Course Delivery**

1. Each institution agrees to offer courses as outlined in the Course Transfer Degree plan (see Appendix A). NTCC will offer at least 55 hours of course work and A&M-Commerce will offer the remaining 73 hours of course work for a minimum of 128 semester hours. Because of possible changes in degree requirements imposed by The State of Texas and program modifications and changes that occasionally occur, NTCC students transferring to A&M-Commerce must follow NTCC, A&M-Commerce and State of Texas policies regarding degree program criteria.

**E. Waivers to A&M-Commerce Graduation Requirements**

1. Junior Level Essay: Students will need to contact the *Testing Office* at A&M-Commerce to determine if they are exempt from JLE requirements. If they are not exempt, they can take the ACCUPLACER essay at NTCC and score 6 or higher (and have these scores transferred to the *Testing Office* at A&M-Commerce) or complete the JLE requirement for writing competency at A&M-Commerce.

**3. Term of Agreement:**

This Agreement shall operate on an ongoing basis. It may only be modified by a written agreement signed by legally authorized officials of both institutions. The Agreement will operate as a commitment for each cohort admitted to A&M-Commerce for this combined degree.

**4. Dispute Resolution:**

The laws of The State of Texas (U.S.A.) shall govern the interpretation and application of this Agreement. Any litigation arising out of this Agreement or its operation, performance or non-performance shall be resolved solely and exclusively by the courts located in Hunt or Titus County, Texas, U.S.A. The designated individual responsible on behalf of Owner for examining any claim or counterclaim and conducting any negotiations related thereto as required under §2260.052 of H.B. 826 of the 76th Texas Legislature shall be:

Mr. Bert A. White, Director  
Purchasing and Contract Administration  
Texas A&M University-Commerce  
P.O. Box 3011  
Commerce, TX 75429-3011

IN WITNESS WHEREOF, the above signed parties hereto have set their hands by and through their duly authorized officers on the date and year first recited above.